

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that GARY A SIDELINGER

Located At 259 DANFORTH ST

Job ID: 2011-09-2211-HVAC

CBL: 057 - - B - 023 - 001 - - - -

has permission to Install 4 gas fired monitor heaters with direct vents including basement provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

[Signature] 9/19/11

Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD**

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2011-09-2211-HVAC	Date Applied: 9/12/2011	CBL: 057 - - B - 023 - 001 - - - - -	
Location of Construction: 259 DANFORTH STREET	Owner Name: GARY A SIDELINGER	Owner Address: PO BOX 1003 PORTLAND, ME 04104	Phone: 797-4549
Business Name:	Contractor Name: TIMOTHY W CALAZZO	Contractor Address: 804 Ocean AVE PORTLAND MAINE 04103	Phone: (207) 831-2432
Lessee/Buyer's Name:	Phone:	Permit Type: HVAC	Zone: using R-6
Past Use: Three family Dwelling	Proposed Use: Same: Three Family Dwelling - to install monitor heaters	Cost of Work: \$3,000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: R-2 Type: HVAC JML2009 Signature: JMB
Proposed Project Description: Install Monitor heaters in Basement and floor		Signature: <i>Cap. Perone 9/17/11</i>	9/19/11
Proposed Project Description: Install Monitor heaters in Basement and floor		Pedestrian Activities District (P.A.D.)	
Permit Taken By:Lannie	Zoning Approval		

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>___ Maj ___ Min ___ MM</p> <p>Date: <i>OK with conditions 9/14/11</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><i>Partially within</i></p> <p><input type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied <i>9/15/11</i></p> <p>Date: <i>Per D.A - N/A - IS Not in The Historic Area</i></p>
	CERTIFICATION		

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

1. Final at completion of work

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-09-2211-HVAC

Located At: 259 DANFORTH

CBL: 057 - - B - 023 - 001 - - - -

Conditions of Approval:

Zoning

1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
2. This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. without special approvals.
3. ANY exterior work requires a separate review and approval thru Historic Preservation. This property is located within an Historic District.
4. This property shall remain a three family dwelling. Any change of use shall require a separate permit application for review and approval.

Fire

2. Installation shall comply with City Code Chapter 10.
3. Fuel-fired boilers shall be protected in accordance with NFPA 101, *Life Safety Code*.
4. Installation shall comply with NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel*—
5. NFPA 31, *Standard for the Installation of Oil-Burning Equipment*;
6. NFPA 54, *National Fuel Gas Code*;
7. NFPA 91, *Standard for Exhaust Systems for Air Conveying Vapors, Gases, Mists, and Noncombustible Particulate Solids*;
8. NFPA 70, *National Electrical Code*; and the manufacturer's published instructions.

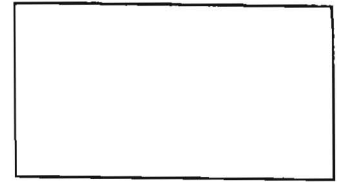
Building

1. Installation shall comply with 2003 International Mechanical Code and the State of Maine gas regulations.
2. A CO detector shall be installed in each area within or giving access to bedrooms. That detection must be powered by the electrical service in the building and battery.
3. This appliance shall be installed, operated and maintained per the manufacturers specifications and the UL listing



FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

15
2-6, B1

Location / CBL 259 DANFORTH ST. Use of Building APT Date 9-12-11
 Name and address of owner of appliance GARY SIDELINGER SIDELINGER APT.
1500 FOREST AVE PORT
 Installer's name and address TIMOTHY W CAIAZZO 804 OCEAN AVE PORTLAND Telephone CELL 831 2432 797-4549

Location of appliance:
 Basement Floor
 Attic Roof

Type of Fuel:
 Gas Oil Solid

Appliance Name: MONITOR
 U.L. Approved Yes No

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

Type of Chimney:
 Masonry Lined
 Factory built _____

Metal
 Factory Built U.L. Listing # _____

Direct Vent
 Type _____ UL# _____

Type of Fuel Tank
 Oil
 Gas

Size of Tank NONE

Number of Tanks _____

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$ 2800.00

Permit Fee: \$ 50 + 50 HST + 100

RECEIVED
 SEP 12 2011
 Dept. of Building Inspections
 City of Portland, Maine

The Type of License of Installer:

Master Plumber # _____
 Solid Fuel # _____
 Oil # _____
 Gas # PNT 3429
 Other _____

Approved

Approved with Conditions

Fire: _____
 Ele.: _____
 Bldg.: [Signature] 9/19/11

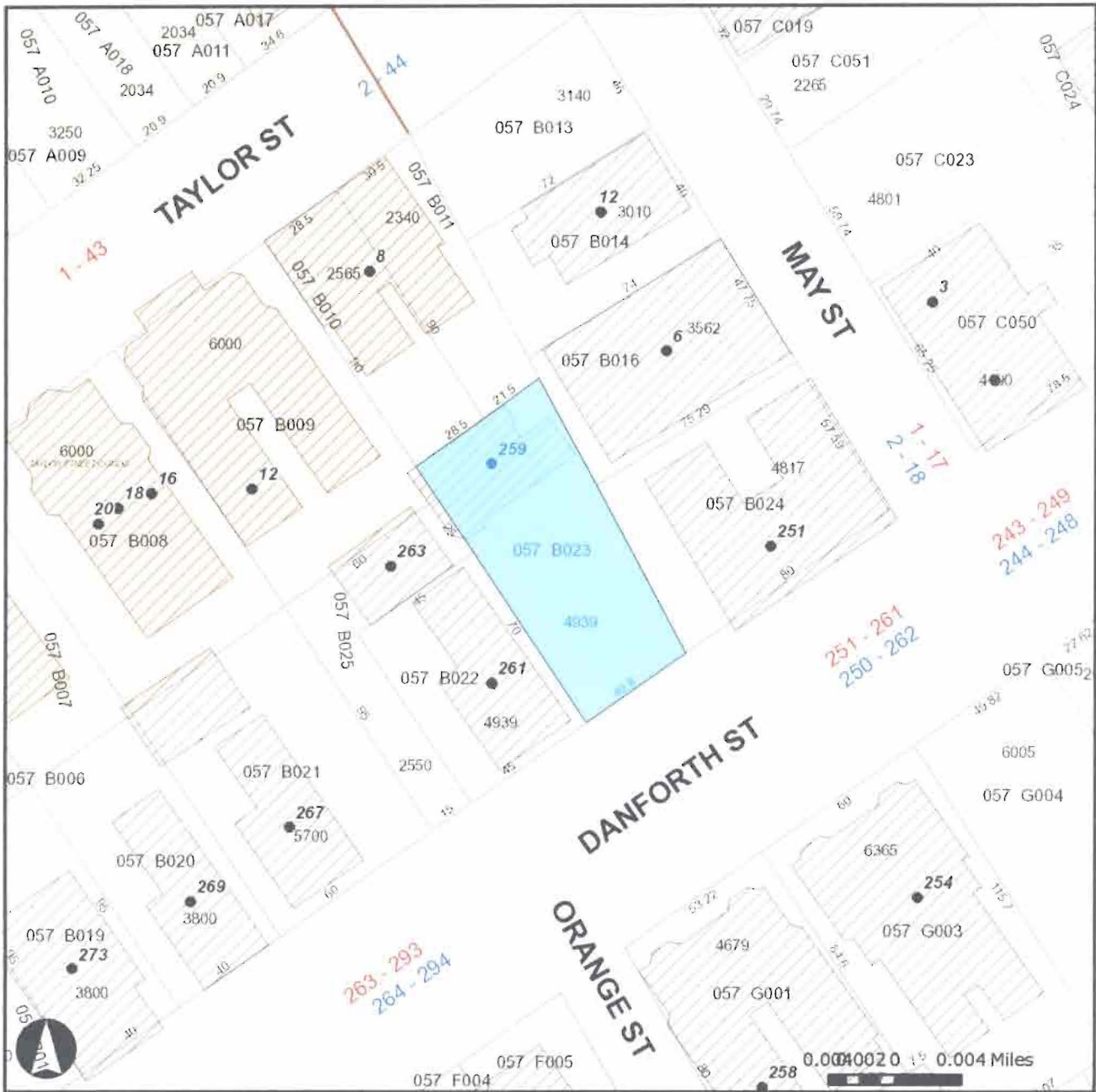
See attached letter or requirement

Inspector's Signature _____ Date Approved _____

Signature of Installer [Signature] 9-12-11

Partially in the stone

Map



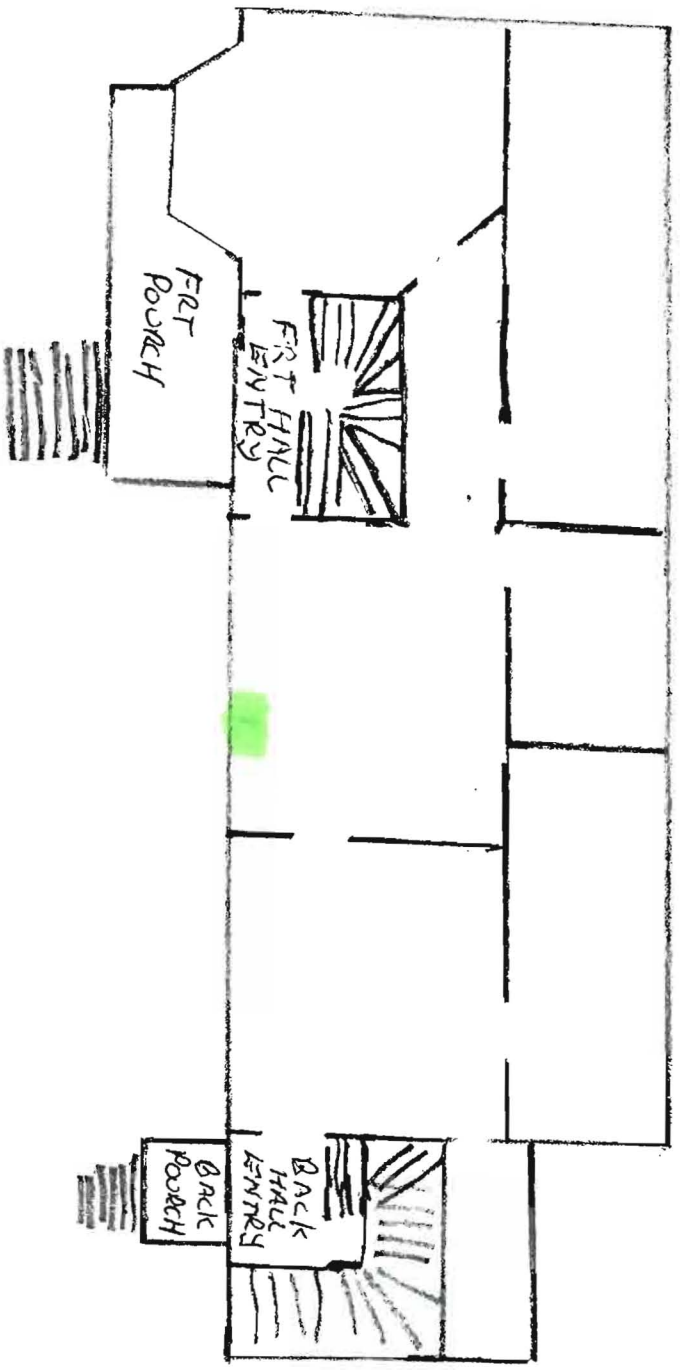
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Parcel	Stream	Historic Landmarks	Land
Interstate	Wetland	Historic Cemeteries	Water Body
Interstate	swamp	Historic Landscapes	Ocean
Streets	Lake/Pond	Historic Districts	
Building	under_road	County Streets	
Out Building			



259 DAN FORTH.

● VENT LOCATION

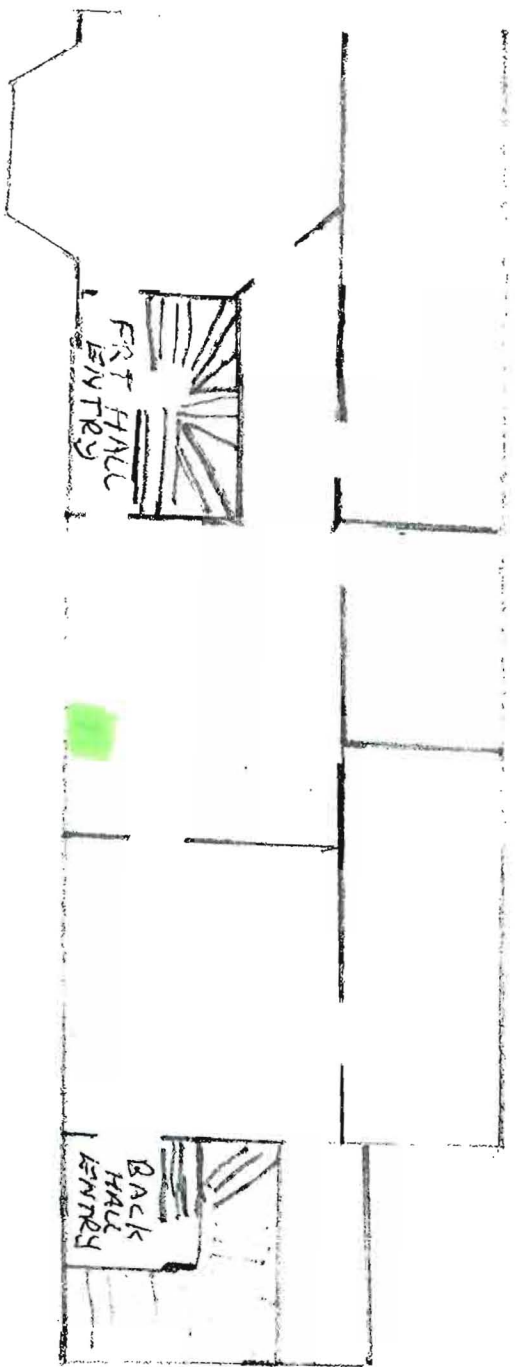
VENTS A ROUND. \odot SIN



259 DANFORTH
1st FLOOR

HEATER LOCATION

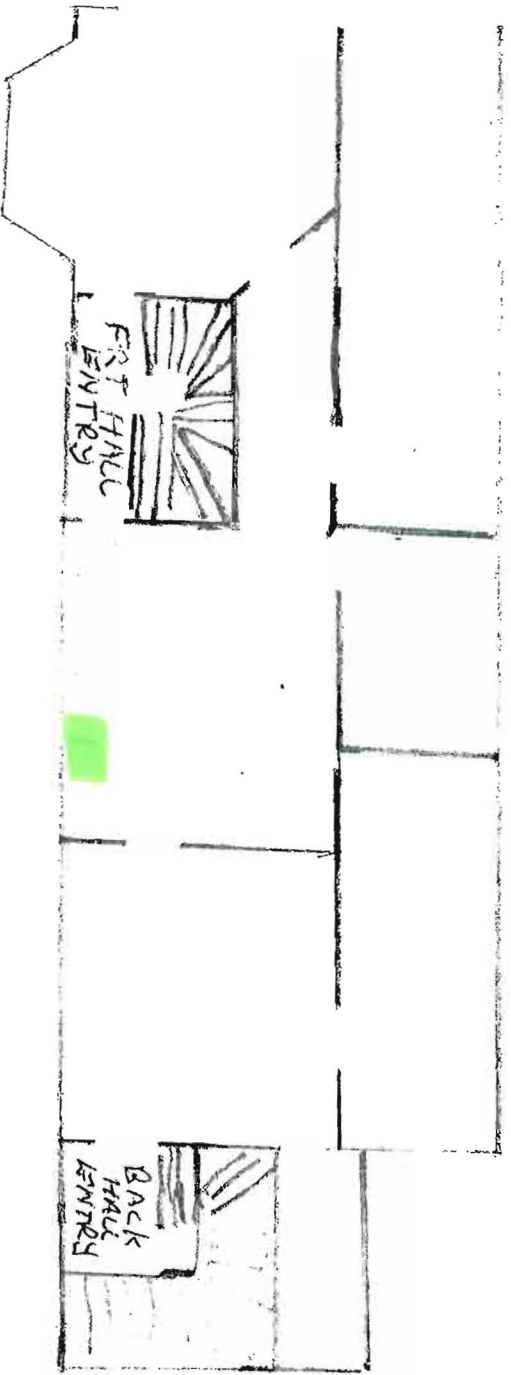
259 DANFORTH ST



259 DANFORTH
2ND FLOOR

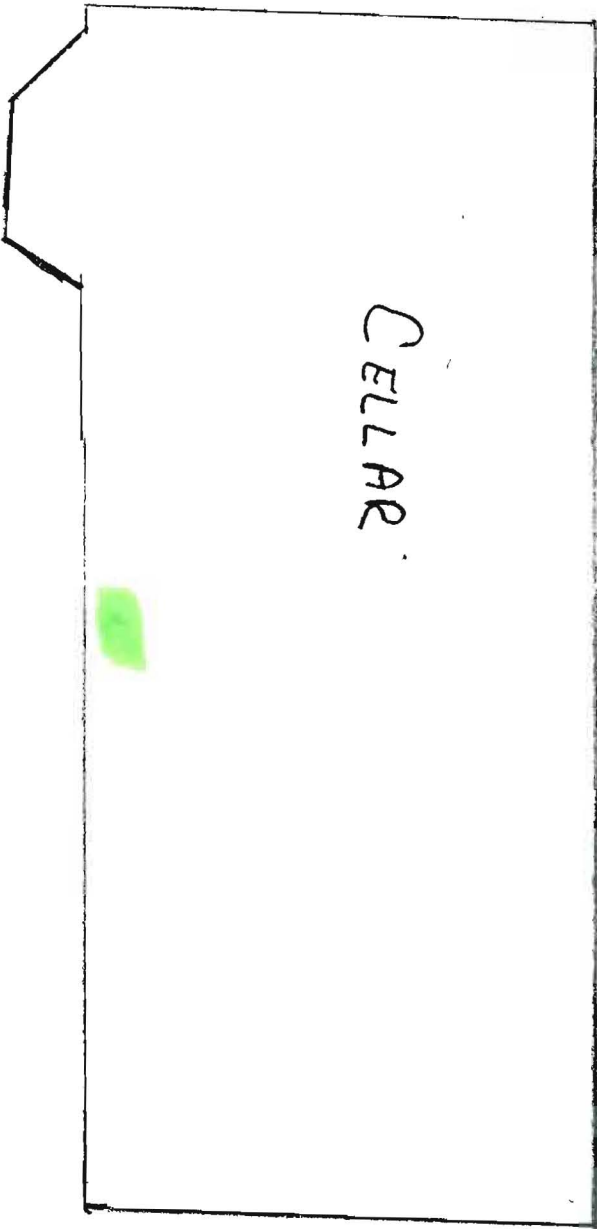
HEATER LOCATION





259 DANFORTH
3RD FLOOR

HEATER LOCATION



259 DAWFOURTH CELLAR

 HEATER LOCATION

MONITOR GF1800 Vented Heating Systems Owner's Guide

This manual provides instructions for BOTH standard construction homes, and Manufactured (Mobile) homes.

IMPORTANT:

READ THIS OWNER'S GUIDE
CAREFULLY AND THOROUGHLY
BEFORE INSTALLING OR USING
YOUR HEATER.

RETAIN THIS OWNER'S GUIDE
FOR FUTURE REFERENCE.



⚠ WARNING: IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WHAT TO DO IF YOU SMELL GAS

DO NOT TRY TO LIGHT ANY APPLIANCE.

DO NOT TOUCH ANY ELECTRICAL SWITCH; DO NOT USE ANY PHONE IN YOUR BUILDING.

IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE.

FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS.

IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.

INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

INSTALLER : Leave this manual with the appliance.

CONSUMER : Retain this manual for future reference.

This appliance may be installed in an aftermarket, permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.



M O N I T O R P R O D U C T S I N C

P.O. BOX 3408, PRINCETON, NEW JERSEY 08543

SAFETY ALERT SYMBOL

These symbols appear as important safety precautions and should be understood and followed by the owner to assure safe operation of the heater.

For Quick Reference

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SECTION A

IMPORTANT CAUTION

WARNING

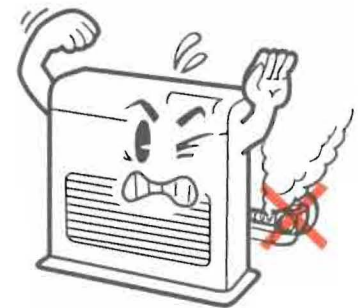
IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE, REFER TO THE OWNER'S INFORMATION MANUAL PROVIDED WITH THIS APPLIANCE.

INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

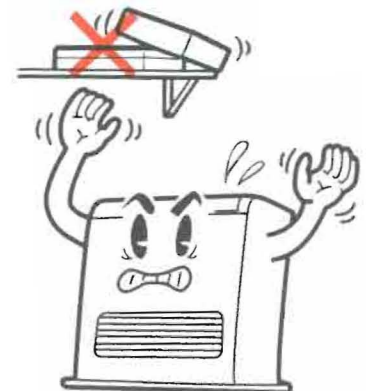
THIS PRODUCT MUST BE INSTALLED BY A LICENSED PLUMBER, OR GAS FITTER, WHEN INSTALLED WITHIN THE COMMONWEALTH OF MASSACHUSETTS.

CAUTION

- Make sure that flue pipe (exhaust pipe, air supply hose) is connected properly.



- Keep heater clean and do not store any flammable items on or near the heater.



- Don't use the heater for drying clothes.



- Should anything abnormal occur in the heater, remain calm, turn it off (do not unplug) and contact your Monitor dealer.

- Risk of burns.
Flue pipe and louver may have high surface temperature.



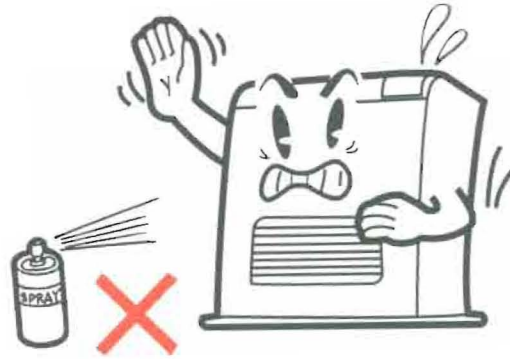
- Do not place yourself or others too close to the heater.
- Installation of heater in extreme humidity or dust areas is not recommended.
Any removal of unit parts or remodeling is strictly forbidden.



- Do not sit on the heater.
Placing ornaments or plants on the heater is not recommended.
Excess heat may cause damage to ornament or plant and overwatering or spilling of water may cause shock to you or damage to the heater.



- Don't spray aerosols on the heater when in operation.

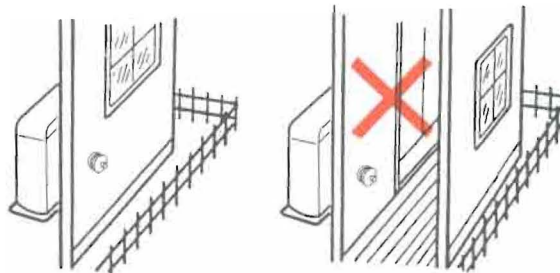


- Don't allow children to insert articles in the louvers.

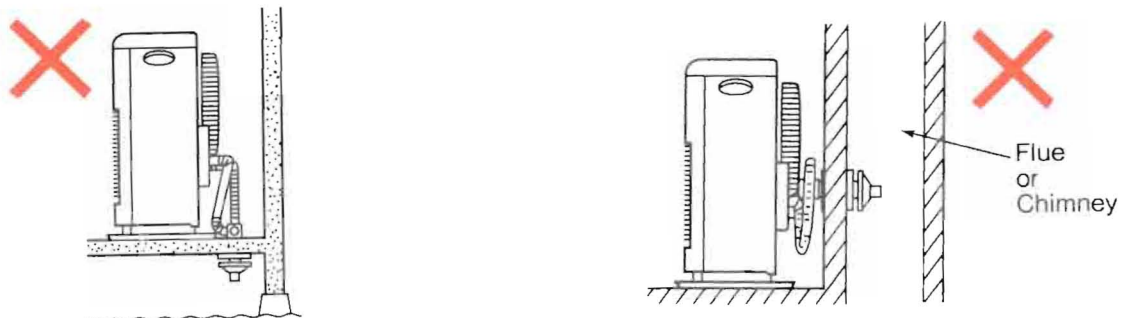
- Keep flammable materials, trees, shrubs etc. away from flue pipe.



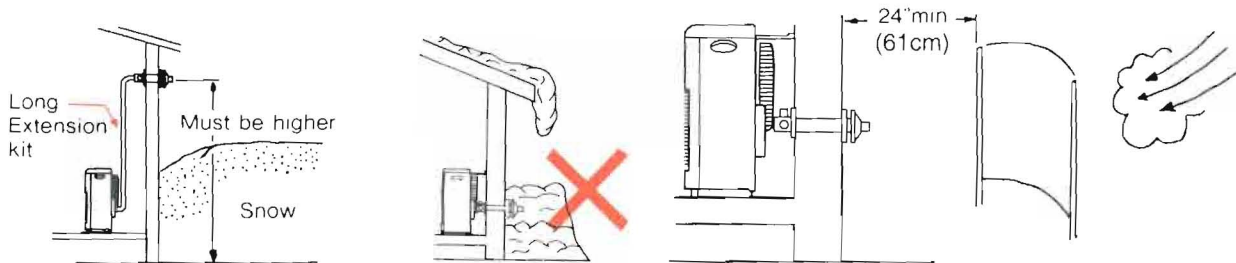
- Do not vent unit into other rooms. Flue pipe must be outside.



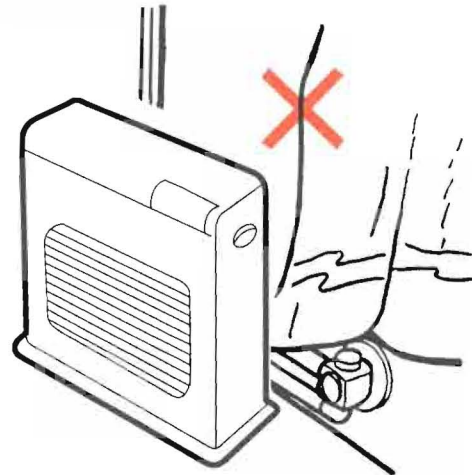
- Do not install nor exhaust the flue pipe into a crawl space or underneath floor nor into a flue or chimney.



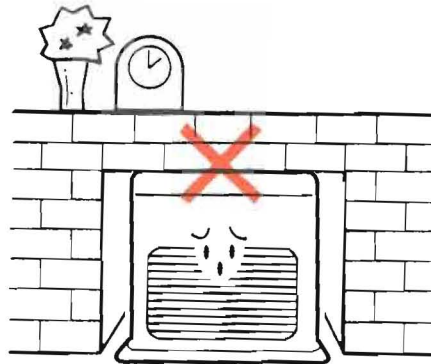
- In areas of heavy snow accumulation, the flue pipe may need to be installed higher to avoid being buried. In open areas with strong wind, a wind break may be necessary to avoid exhaust gases being blown back into the intake and causing poor combustion.



- Exhaust pipe must be kept clear of flammable materials.



- This heater is not designed to be built in.



SECTION B

SPECIFICATIONS

Model No.	GF 1800
Type of Appliance	Fan type direct vent wall furnace
Input Rating	Nat. Gas 20,000 BTU/hour LP. Gas 20,000 BTU/hour
Output Rating	Nat. Gas 16,000 BTU/hour LP. Gas 16,000 BTU/hour
Efficiency	83%
Electrical Rating	120V, 60Hz, Less Than 2 amperes
Power Consumption	65 Watts
Heated Air Delivery	High 176 Cubic feet/minute Low 113 Cubic feet/minute
Fuel Pipe Hole	2.5 inches diameter
Dimensions	Height : 26.0 inches (66.04cm) Width : 20.9 inches (53.09cm) Depth : 13.0 inches (33.02cm)
Weight	55 pounds
Inlet Gas Supply Pressure	Nat. Gas Max. 10.5 inch W.C. (267 mmH ₂ O) Min. 5.1 inch W.C. (130 mmH ₂ O) LP. Gas Max. 13.0 inch W.C. (330 mmH ₂ O) Min. 11.0 inch W.C. (279 mmH ₂ O)
Manifold Test Pressure	Nat. Gas 3.15 inch W.C. (80 mmH ₂ O) LP. Gas 3.19 inch W.C. (81 mmH ₂ O)

The minimum and maximum inlet gas supply pressure are for the purpose of input adjustment. The efficiency rating of this appliance is a product of thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

SPECIAL FEATURES

AUTOMATIC IGNITION

MEMORY BACK UP : Set memory can be kept in case of power failure for up to 30 minutes.

DUAL BLOWERS : Separate fans for combustion and room air circulation.

THERMOSTATICALLY CONTROLLED : Adjusts to the desired room temperature.

BUILT-IN TIMER : Heater will automatically operate as programmed by the user.

AUTOMATIC RESET AFTER POWER FAILURE : Heater will automatically resume operation after power is restored.

INDICATOR LIGHTS : Easy-to-see signals show when heater is in operation, when timer is activated, and when the burner is operating.

CLEAN OPERATION : Products of combustion are vented outside.

CONSUMES NO ROOM AIR : Air for combustion is drawn from outside.

EASY INSTALLATION : Includes all parts required for standard installation.

SAFETY FEATURES

SAFE RE-LIGHTING: Heater will not restart until its combustion chamber has cooled.

ELECTRICAL PROTECTION : Heater automatically shuts off in the unlikely event of a malfunction in the electrical circuitry or disruption of the power supply.

NO EXHAUST IN ROOM : Products of combustion are discharged outdoors.

FLUE PIPE : Outside air is drawn through a pipe-within-a-pipe venting system. This process preheats combustion air and regains heat from exhaust gases.



CAUTION: ALTERNATE POWER SOURCES

The Monitor GF1800 may not operate when powered by sources such as an auxiliary generator, UPS (Uninterrupted power Source), inverters, etc. Check with your dealer for guidance on specific applications.

SECTION C

Before installing your heater, be sure to check and comply with local and state building and electrical codes that may apply to vented heaters in your area. Permanent wiring must be installed by a licensed electrician.

TOOLS NEEDED FOR HEATER INSTALLATION

Check the following charts to be sure you have all the tools required to install your Monitor GF1800 Heating System.

STANDARD TOOLS	APPLICATION
Phillips Head Screwdriver	Installation of Heater Parts
Steel Tape Measure	Taking Measurements
Pen or Pencil	Marking Drilling Location
Exterior Caulk	Caulking Between Packing and Wall
Yardstick or Long Straight Edge	Checking Angle of Hole for Flue Pipe
Soapy Water	Lubricating Sleeve Hardware

SPECIAL TOOLS	APPLICATION
Electric Drill	Accommodating Hole Saw and Drill Bit
2 1/2 inch Hole Saw Attachment	Cutting Hole for Flue Pipe
Long 1/4 inch Drill Bit	Drilling Pilot Hole Through Wall
Level	Checking Angle of Hole for Flue Pipe and for checking heater level.

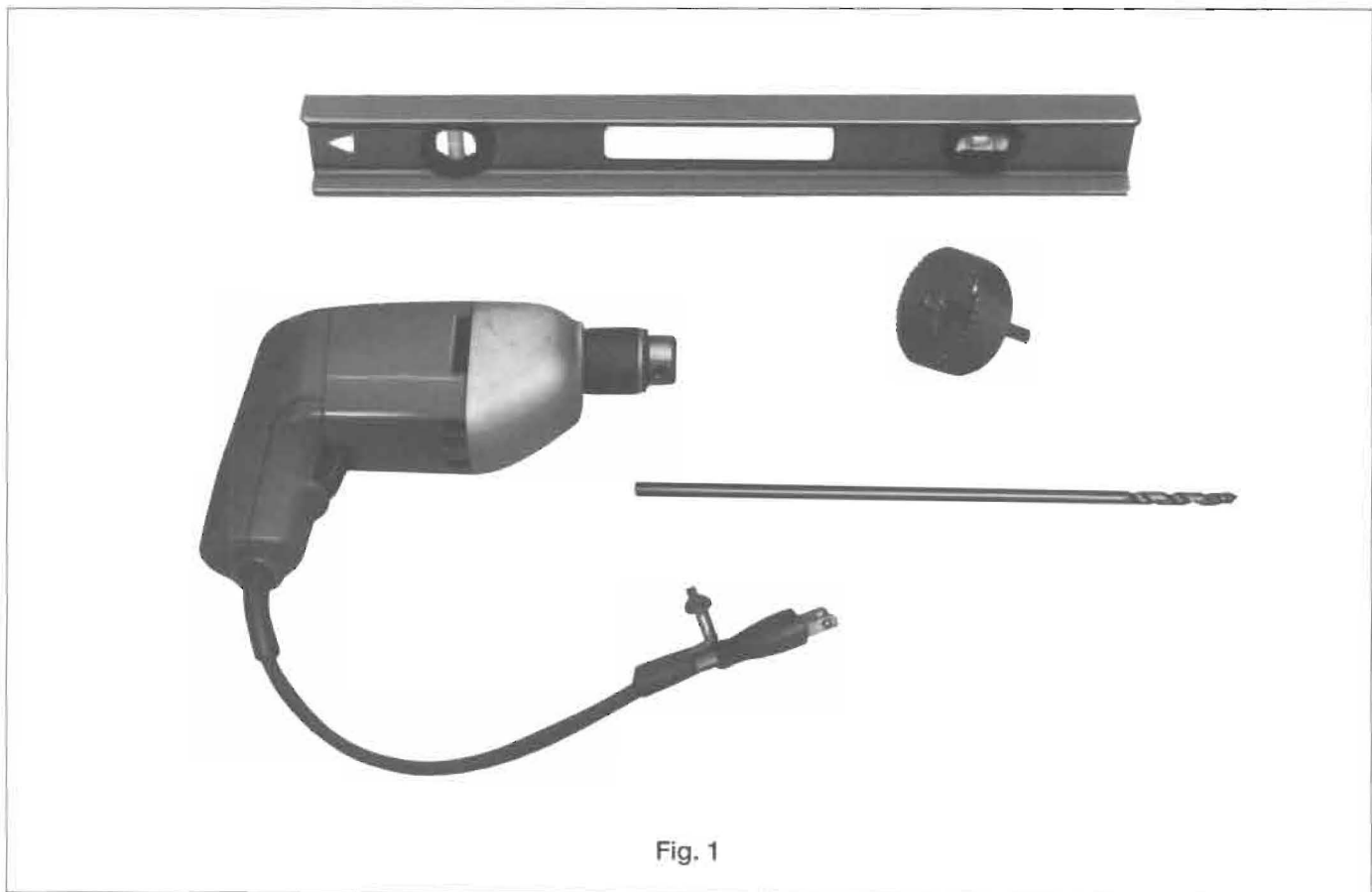



Fig. 1

ACCESSORIES YOU MAY NEED

Check the list below and see your MPI dealer for accessories you may need or want for installation of your heating system.

 **CAUTION:** Only use the flue pipe supplied with the Monitor GF1800, or the approved accessory Kits available from your Monitor or dealer.

ACCESSORY		APPLICATION
Medium Adjustable Flue Pipe Kit	P/N 8051	For use where wall thickness is up to 12½ inches (31.5cm)
Long Adjustable Flue Pipe Kit	P/N 8052	For use where wall thickness is up to 20 inches (50.5cm)

Extra Short, Short, Medium or
Long Extension Kit or Elbow Adapter Kit
(See Flue Pipe Extensions, page 8)

For use where "standard" installation is not practical

FLUE PIPE EXTENSIONS

Four standard extension kits are available from your Monitor dealer. Most installations can be made with one of these kits. In special cases, custom installations may be required. These may be made with components purchased from your dealer.

In any installation the following limitations **MUST NOT BE EXCEEDED**:

1. The total length of the intake or exhaust pipe should not exceed 10 feet (3.05m) with 3 elbows, 13 feet (3.96m) with 2 elbows, or 16½ feet (5.3m) with 1 elbow.

2. These elbows should include the one used at the heater but not the one on the air supply hose nor the integral bends in the flue pipe. (See Figure 2)
3. The correct damper as shown on Page 15 must be used.
4. Follow carefully the instruction included with each kit.

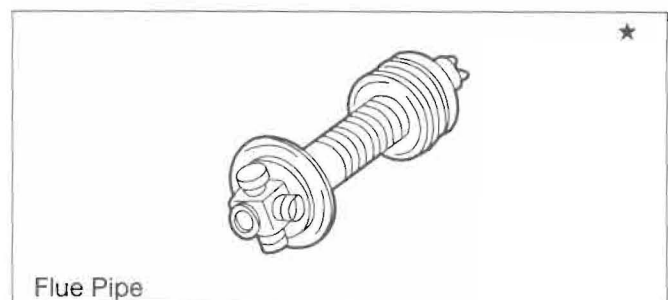
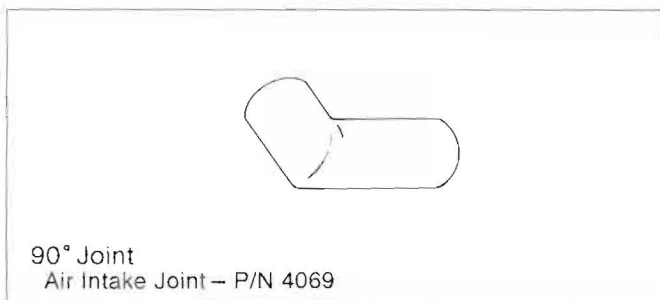
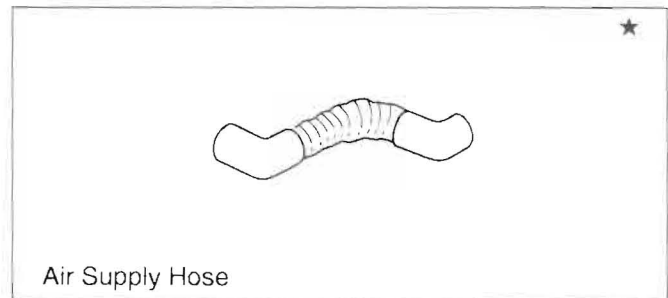
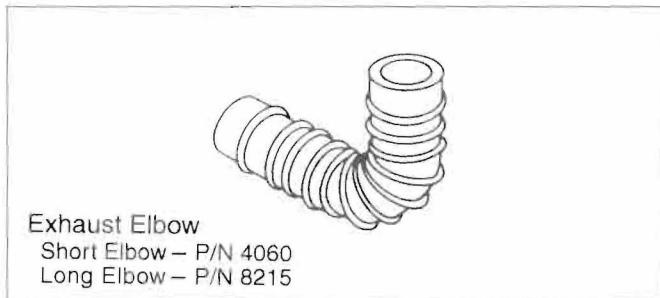


Fig. 2

★ Do not count

SECTION D

NOTICE BEFORE INSTALLATION

The heater must be installed by a qualified service person according to this installation instruction .

The installation must conform with Local codes or, in the absence of local codes, the *National Fuel Gas Code, ANSI Z223.1/NFPA 54* or *Natural Gas and propane Installation Code, CSA B149.1*.

For appliances for recreational vehicle installation, the *Standard for Recreational Vehicles, ANSI A119.2*, or the *Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4*.

A manufactured home (USA only) or mobile home OEM installation must conform with the *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280*, or, when such a standard is not applicable, the *Standard for Manufactured Home Installations, ANSI Z225.1*, or *Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4*.

A manufactured home (mobile home) installation must conform with the *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280*, or, when such a standard is not applicable, the *Standard for Manufactured Home installations, ANSI A 225.1/NFPA 501A*.

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance.

Clothing or other flammable material should not be placed on or near the appliance.

Make sure that the flow of combustion and ventilation air is not obstructed.

Any safety or guard removed for servicing an appliance must be replaced prior to operating the appliance.

WARNING

Do not operate appliance with the panel removed, cracked or broken. Replacement of the panel should be done by a licensed or qualified service person.

This appliances may be installed in an aftermarket, permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.

Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.

The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70* .

The appliance, when installed, must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current *CSA C22.1 CANADIAN ELECTRICAL CODE*.

WARNING

THIS APPLIANCE IS EQUIPPED WITH A THREE-PRONG (GROUNDING) PLUG FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG.

WARNING

IN MANUFACTURED/MOBILE HOMES WIRED FOR 120/240V, ENSURE THAT THE GF1800 IS ONLY PLUGGED INTO A 120 VOLT CIRCUIT.

CAUTION

Before converting the GF1800 gas type (to Liquid Propane or Nat Gas), Read instructions in Section E, Page 17.

HEATER INSTALLATION

Step 1: Fill Out Owner Registration Card

Remove your owner registration card from the plastic envelope containing the owner's guide. It should be filled out and mailed as soon as possible.

Step 2: Check for Parts

Before discarding packing materials, be sure you have located the following:

- Manual Gas Valve
- Conversion Kit
- Flue Pipe
- Sleeve Nut
- Tray
- Room Temp. Sensor (attached to the rear of the heater)
- Cardboard Template
- "LP.NAT" Damper
- Body Clamps (2)
- Rubber Packing
- Joint Pipe
- Cloth Insulation Cover
- Outer Flange
- Pipe Holder
- Small Bag of Screws
 - Tapping, Type A – #8x³/₄
 - Tapping, Type A – #8x⁵/₁₆

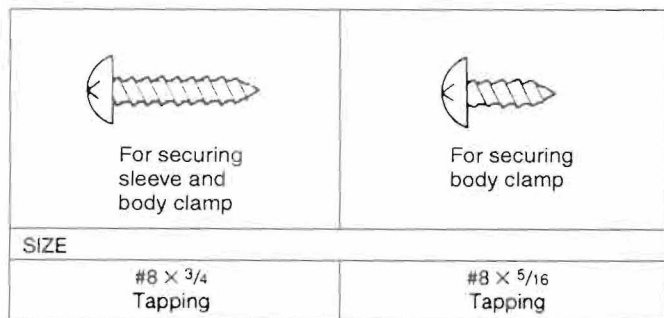


Fig. 3

Step 3: Choose a Location for Your Heater

In choosing a location for your heater, the following guidelines must be considered:

- The heater may be installed on combustible flooring on the metal tray provided.
- The area around the heater should be free of obstacles that might interfere with the free flow of air. Allow the clearances shown in Figure 4.
- The heater must not be installed in a fireplace.
- An AC wall outlet must be within reach of the heater's power cord. Extension cords must not be used.
- The area outside where the flue pipe will emerge should be free of foliage, fuel storage tanks and flammable objects. Air should circulate freely in the area. Allow the clearances shown in Figure 7 on the next page.
- Refer to Figure 4 to provide adequate accessibility clearances for servicing.

- The wall where flue pipe hole will be cut should be free of plumbing pipes, electrical wires, studs, air ducts and other obstacles.

NOTE : Use the cardboard template provided with your heater for flue pipe location.

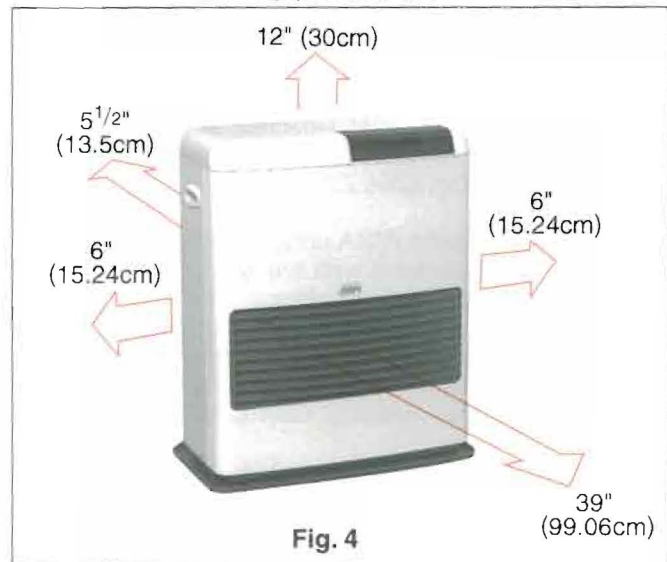


Fig. 4

If the unit is installed so that it is enclosed on both sides and top, the following instructions shall be carried out.

With the side and top clearances as shown in Fig. 5a, the Monitor shall not be placed so that its front surface is inside of the enclosure.

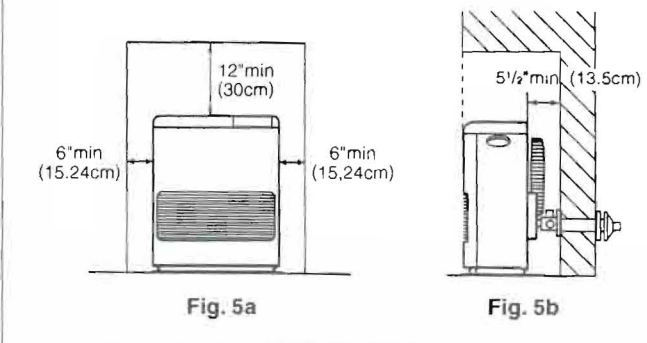


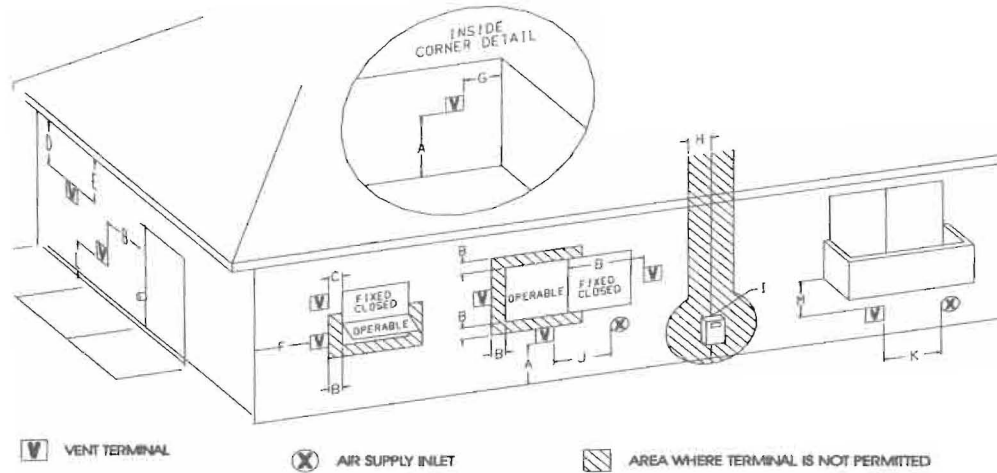
Fig. 5a

Fig. 5b

Step 4: Drill a Pilot Hole

NOTE: The following directions apply to "standard" installation. For other methods, follow instructions included with accessory kits.

For walls up to 8 1/2 inches (22.0cm) thick, use a standard flue pipe; for walls up to 12 1/2 inches (31.5cm) thick, use a medium adjustable flue pipe kit; and for walls up to 20 inches (50.5cm) thick, use a long adjustable flue pipe kit.



	Canadian Installations ¹	US Installations ²		Canadian Installations	US Installations ⁴
A= Clearance above grade, veranda, porch, deck, or balcony	12 inches (30 cm)	12 inches (30 cm)	J= Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 inches (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 12 inches (30 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 100,000 Btuh (30 kW), 36 inches (91 cm) for appliances > 100,000 Btuh (30 kW)	6 inches (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 9 inches (23 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 50,000 Btuh (15 kW), 12 inches (30 cm) for appliances > 50,000 Btuh (15 kW)
P= Clearance to window or door that may be opened	6 inches (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 12 inches (30 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 100,000 Btuh (30 kW), 36 inches (91 cm) for appliances > 100,000 Btuh (30 kW)	6 inches (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 9 inches (23 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 50,000 Btuh (15 kW), 12 inches (30 cm) for appliances > 50,000 Btuh (15 kW)	K= Clearance to a mechanical air supply inlet	6 feet (1.83 m)	3 feet (91 cm) above if within 10 feet (3 m) horizontally
C= Clearance to permanently closed window	*	*	L= Clearance above paved sidewalk or paved driveway located on public property	7 feet (2.13 m) †	*
D= Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	*	*	M= Clearance under veranda, porch, deck, or balcony	12 inches (30 cm) †	*
E= Clearance to unventilated soffit	*	*			
F= Clearance to outside corner	*	*			
G= Clearance to inside corner	*	*			
H= Clearance to each side of center line extended above meter/regulator assembly	3 feet (91 cm) within a height 15 feet (4.5 m) above the meter/regulator assembly	*			
I= Clearance to service regulator vent outlet	3 feet (91 cm)	*			

¹ In accordance with the current *CSA B149.1, Natural Gas and Propane Installation Code*
² In accordance with the current *ANSI Z223.1/NFPA 54, National Fuel Gas Code*
³ A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.
⁴ Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.
 * For clearances not specified in *ANSI Z223.1/NFPA 54* or *CSA B149.1*, one of the following shall be indicated:
 a) A minimum clearance value determined by testing in accordance with section 4.7.3, 6.5.5, 8.5.5, or;
 b) A reference to the following footnote:
 "Clearance in accordance with local installation codes and the requirements of the gas supplier."

Vent Terminal Clearances

Use the template to position the hole to be drilled. The "blue dot" indicates the exact center of the hole. Using an electric drill and a long drill bit, make a pilot hole through the wall (Figure 6). Be sure the hole extends through the outside wall.

CAUTION: The opening on the inside wall should be approximately 1/4 inch higher than on the outside wall so the flue pipe will slope downward when installed. This will allow condensation to drain outdoors.

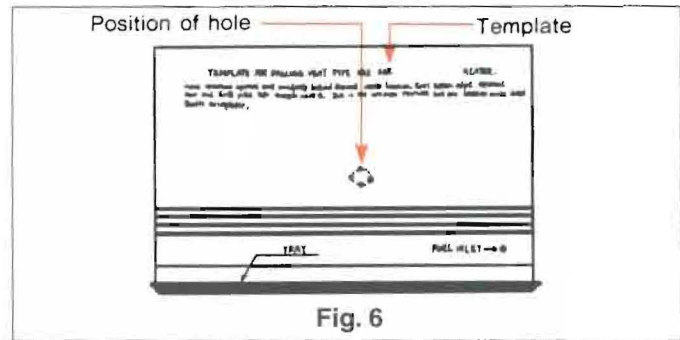


Fig. 6

FLUE PIPE CLEARANCES

- Vent terminal must be located at least 3 feet above any forced air inlet located within 10 feet.
- The vent terminal of a direct vent appliance with an input of 50,000 Btu per hour or less shall be located at least 9 inches from any opening through which flue gases could enter a building, and such an appliance with an input over 50,000 Btu per hour shall require a 12-inch vent termination clearance. The bottom of the vent terminal and the air intake shall be located at least 12 inches above grade.
- Flue pipe installations should provide for venting to an unconfined space through which there is a free flow of outdoor air. Clearances to adjacent walls or obstacles must comply with the requirements shown below.

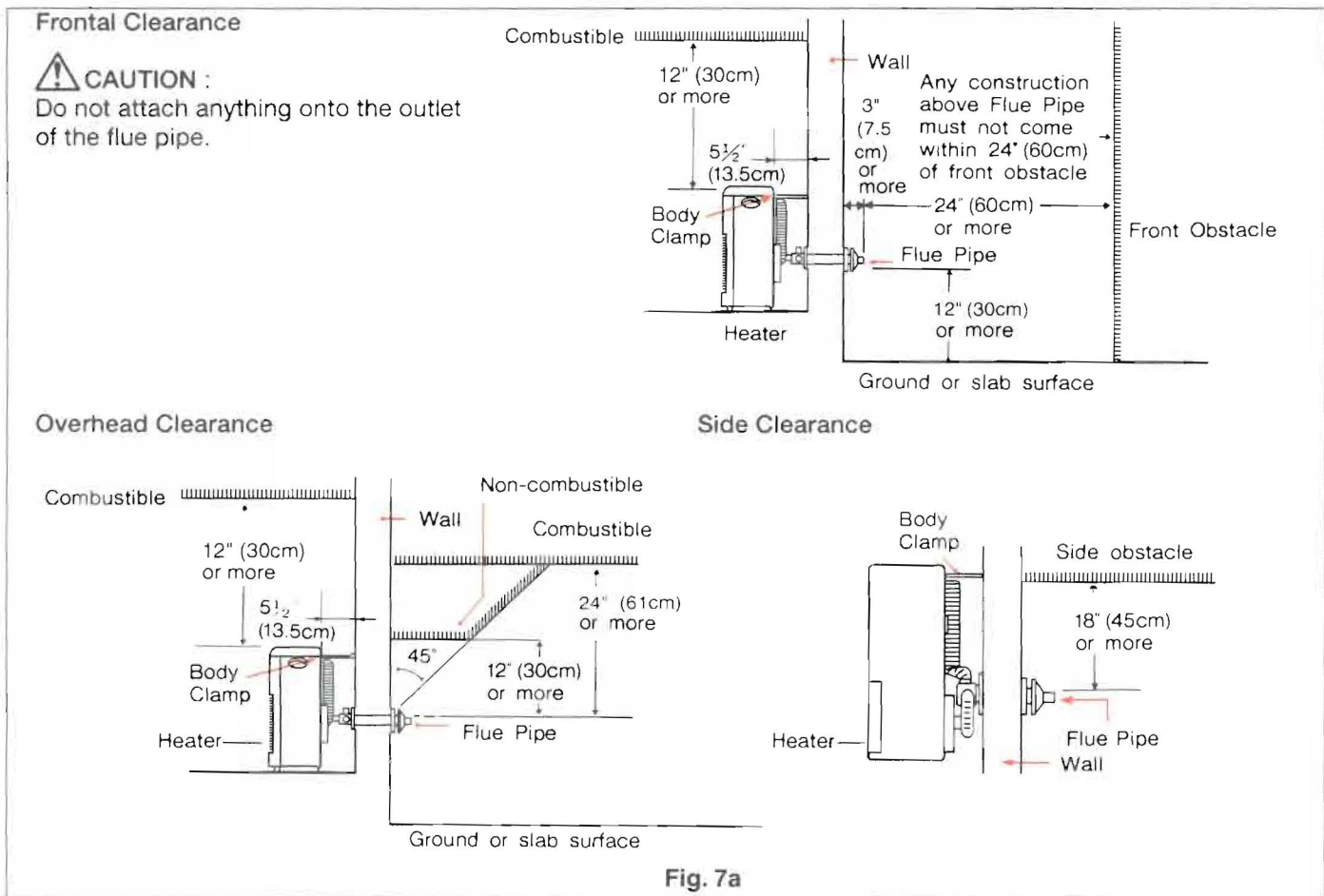
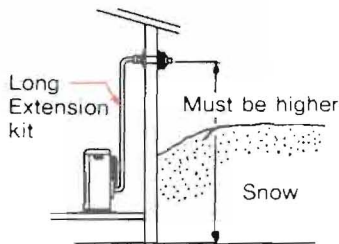


Fig. 7a

IMPORTANT:

(1) In areas of heavy snow falls, ground surface clearance must be increased according to average snow falls, to prevent flue pipe from being buried.



(2) In open area with strong wind, a wind break may be necessary.

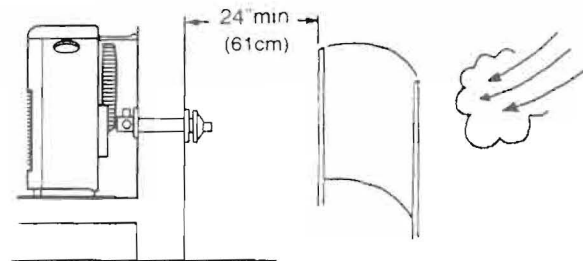


Fig. 7b

Step 5: Cut the Hole for the Flue pipe

Using a hole saw attachment and an electric drill, cut a 2½ inch diameter hole through the inner and outer walls (Figure 8).

After the hole is cut, use a straight edge and level to be sure the inside opening is approximately ¼ inch higher than the outside opening.

NOTE: After cutting the inside wall, remove the insulation. Make sure there are no obstructions inside the wall, such as electrical wiring, water pipes, hot air ducts,

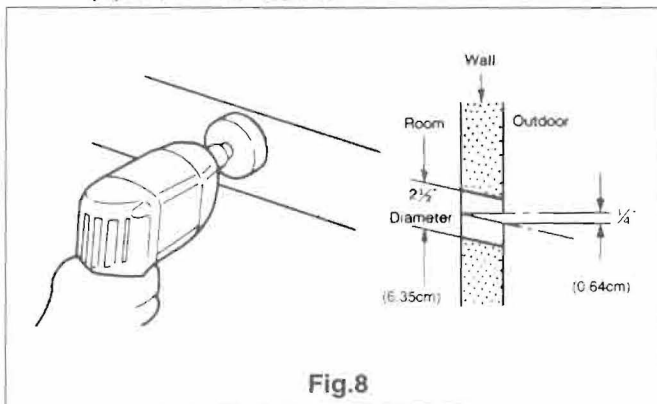


Fig.8

NOTE : Top center port is an extra exhaust port.

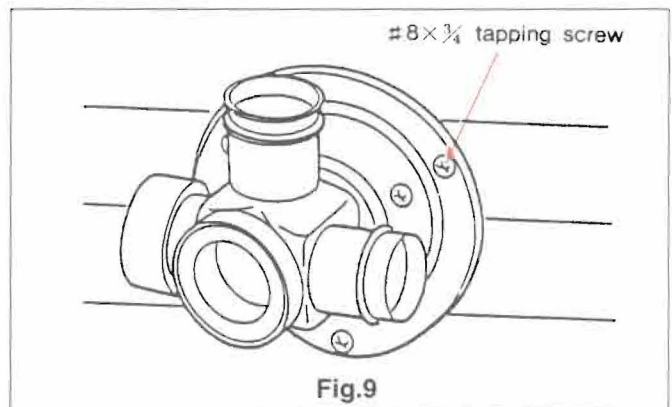


Fig.9

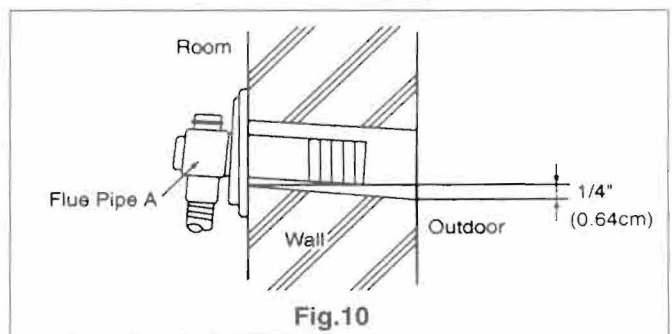


Fig.10

Step 6: The Flue Pipe is two Sections, Flue Pipe A and Flue Pipe B

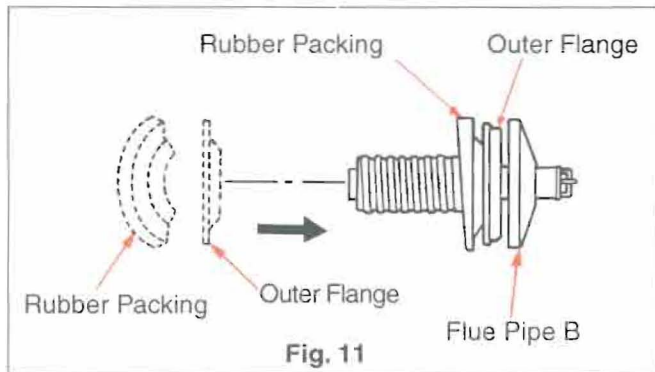
Install the Flue Pipe A

From INSIDE the building, insert the flue pipe A (with arrow pointing "up") into the hole. Fasten the flue pipe with the 3#8X 3/4 tapping screws (Figure 9 and 10). (See Figure for screw size and application).

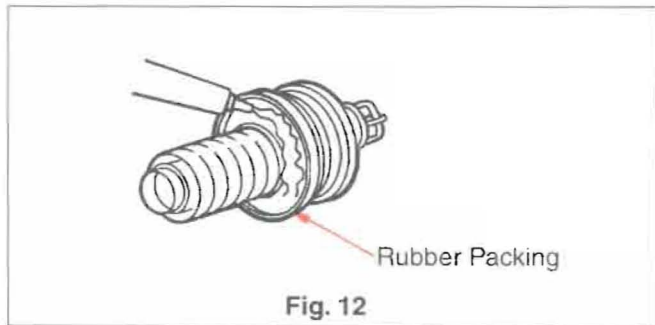
Step 7: Install Flue Pipe B

Wall Thickness: 5-8 1/2 inches

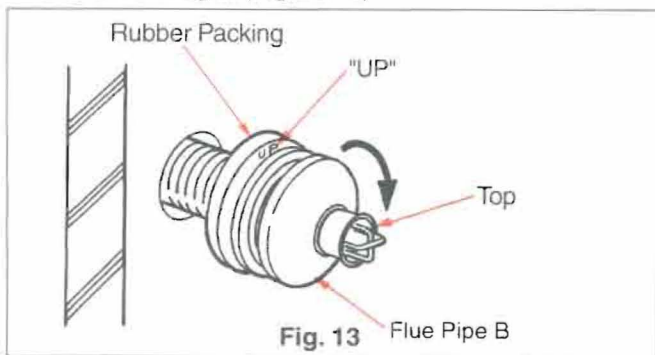
1. Slide the outer flange and the rubber packing onto Flue pipe B. (Figure 11)



2. Spread caulking material on the inside of the rubber packing if required. (Figure 12)

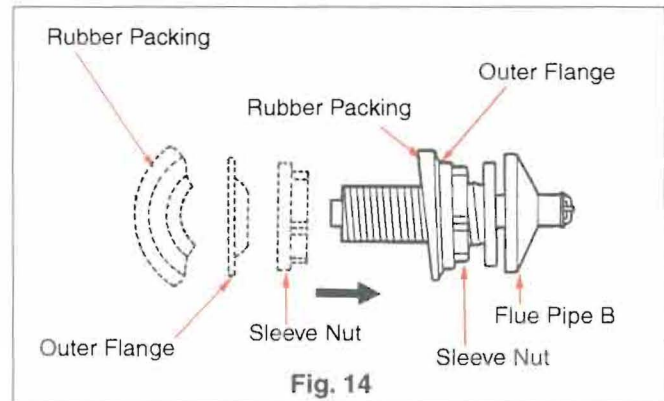


3. It is important to keep the "UP" mark on the rubber packing at the top while screwing in Flue pipe B. Hold the packing in place while screwing in Flue pipe B until it is the tight. (Figure 13)



Wall Thickness: 5/8-5 inches

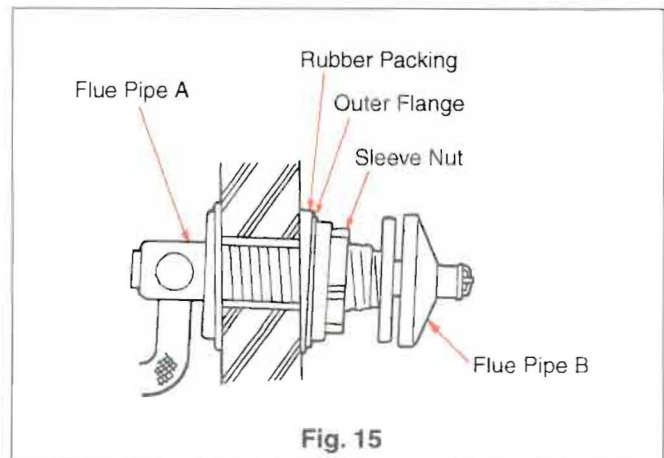
1. Set the Sleeve nut on to Flue Pipe B and turning the Sleeve Nut counter-clockwise. Slide the Outer Flange and the Rubber Packing onto the Flue Pipe B. (Figure 14)



2. Spread caulking material on the inside of the Rubber Packing if required. (Figure 12)

3. It is important to keep the "UP" mark on the Rubber Packing at the top while screwing in the Flue Pipe B. Hold the Rubber packing in place while screwing in the Flue Pipe B until it is the tight. (Figure 13)

4. Turn the Sleeve Nut clockwise and tighten. (Figure 15)



Step 8: Level the cabinet

Place tray on the floor where you plan to locate your heater.

Position the heater on the tray so the legs of the cabinet fit into the circular indentations in the tray.

In order for the heater to operate properly, it must be positioned on a level surface. Ensure proper leveling by adjusting each leg and by using a carpenter's level to check both side to side, and front to back level condition. (Figure 16)

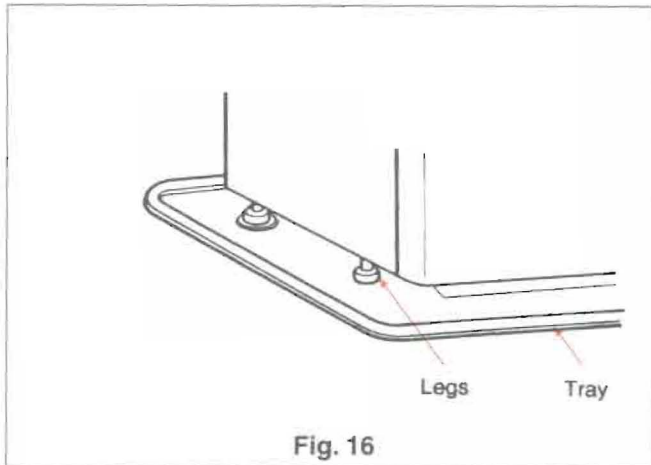


Fig. 16

Step 9: Install the Joint Pipe

At the rear of the heater, slide the large end opening of the joint pipe into the exhaust port outlet of the heater. Be sure the joint pipe is fully seated. Slide the cloth insulation cover over the joint pipe (Figure 17).

The o-rings that seal the joint pipe may be dry and tight. A little soapy water will ease installation.

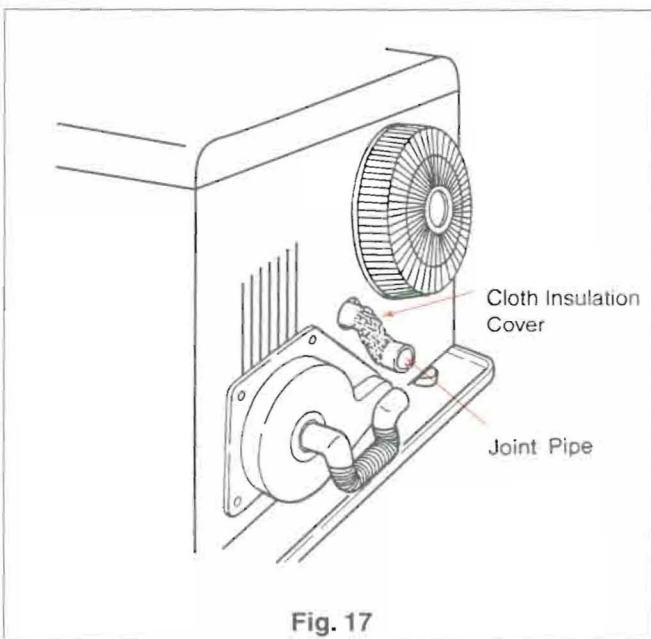


Fig. 17

Step 10: Connect the Heater to the Flue Pipe

Move the heater toward the wall, guiding the joint pipe into the center port of the flue pipe (Figure 18).

Be sure the joint pipe is completely inserted into the flue pipe.

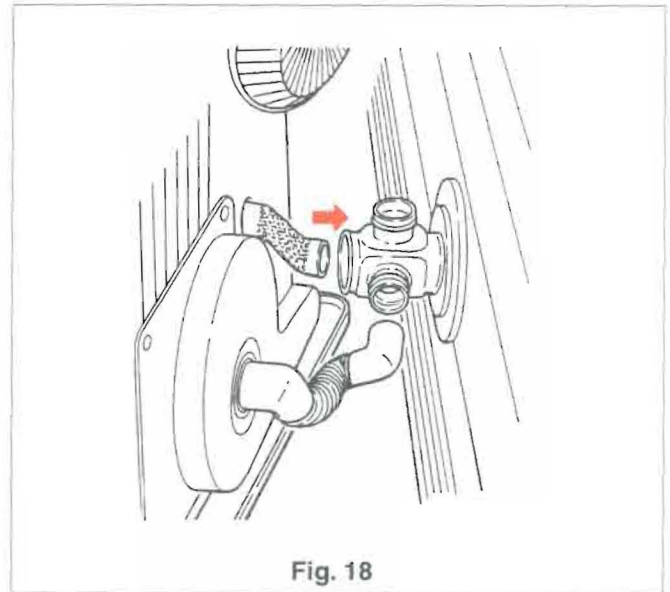


Fig. 18

Step 11: Install the Air Damper

If installation is standard (that is no extension kits are required), place the air damper marked with a "LP-NAT" over the air intake flange on the flue pipe (Figure 19).

Place the hose band around the end of the air supply hose. Push the air supply hose onto the air intake flange and secure the hose with the hose band.

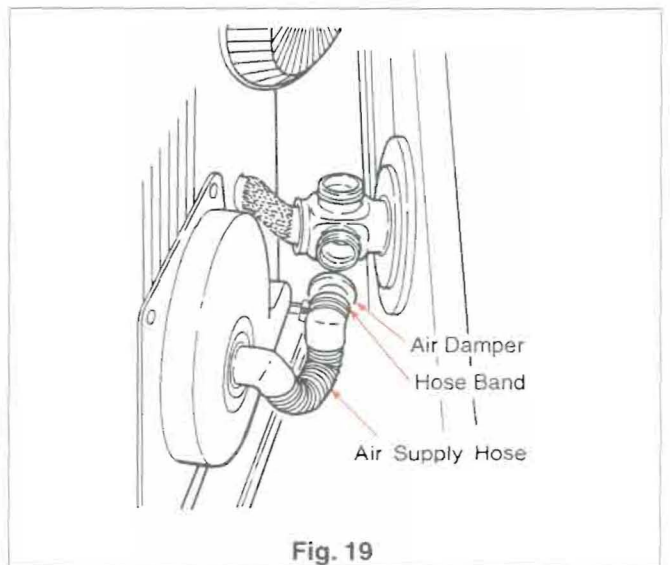
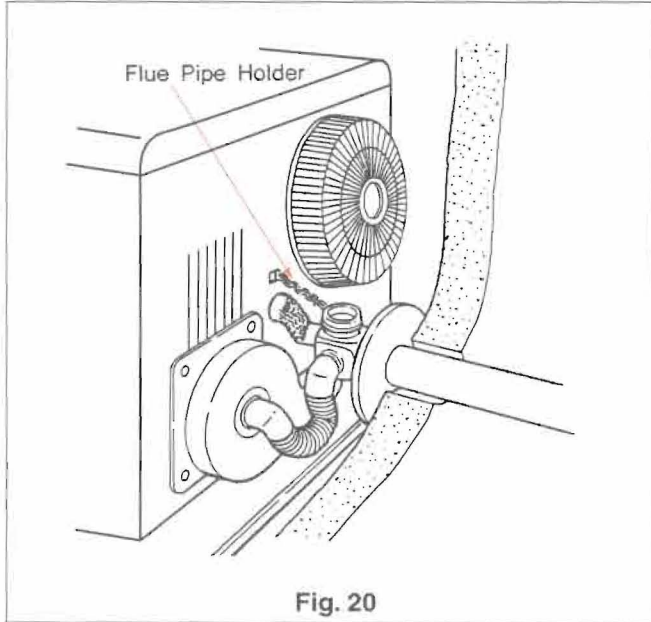


Fig. 19

NOTE: DO NOT place intake hose onto metal capped exhaust port.

Step 12: Install the Flue Pipe Holder

Place the ring of flue pipe holder around the metal capped exhaust port. The other side of the holder hooks in a slot directly above the joint pipe at the rear of the heater (See Figure 20).



Step 13: Secure the Heater

Insert the narrow ends of the 2 body clamps into sockets on the rear of the heater.

Loosen the 2#8 x 5/16 adjustment screws and extend the clamps until they touch the wall. Fasten the clamps the wall with 2#8 x 3/4 tapping screws.

Fasten the adjustment screws.

Step 14: Recheck the Heater

Before proceeding, check again to be sure there are no flammable materials close to the heater. Re-check that the heater is level.

Examine the flue pipe to be sure connections are tight.

⚠ WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

SECTION E

GAS CONNECTION

1. The gas supply line shall be gas-tight, sized and so installed as to provide a supply of gas sufficient to meet the maximum demand of the heater without loss of pressure.
2. The gas line should be installed with enough flexibility to allow the heater to be moved from the wall for maintenance. Check local codes for use of flex hose.
3. A shut off valve should be installed in the upstream of the gas line to permit servicing.
4. Flexible pipe and any appliance connector valve used for gas piping shall be types approved by nationally recognized agencies.
5. Any compound used on the threaded joint of the gas piping shall be a type which resists the action of liquefied petroleum gas.
6. Supplied gas pressure must be within the limits shown in the specifications.
7. After completion of gas connections, all joints including those at the heater must be checked for gas-tightness by means of leak detector solution, soap and water, or an equivalent nonflammable solution, as applicable.
8. The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi(3.5kPa).
The appliance must be isolated from the gas piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressure equal to or less than 1/2 Psi(3.5kPa).
9. A 1/8 test plug is provide for testing of manifold pressure see schematic for location (page 29)
At time of installation installer must supply a 1/8 N.P.T. plugged tapping, accessible for test gauge connection, immediately upstream of the gas supply connection of the appliance.
10. The minimum and maximum inlet gas supply pressure are for the purpose of input adjustment.

⚠ CAUTION: Since some test solutions, including soap and water, may cause corrosion or stress cracking, the piping shall be rinsed with water after testing, unless it has been determined that the leak test solution is noncorrosive.

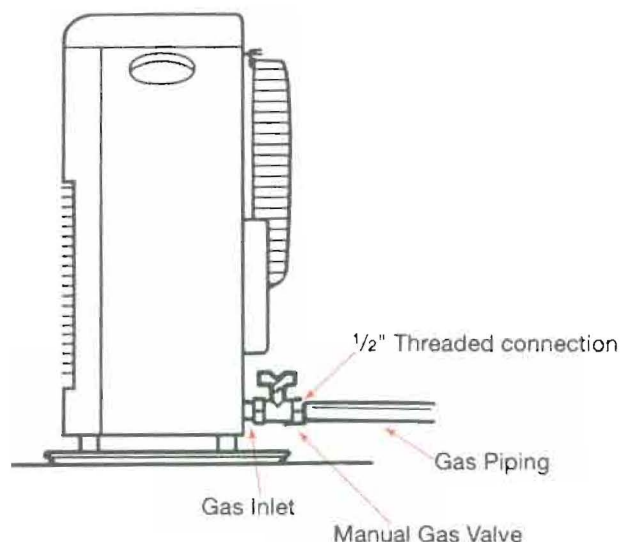


Fig. 21

GAS CONVERSION

Conversion should only be performed by a qualified Monitor GF service technician.

The conversion shall be carried out in accordance with the requirements of the provincial authorities having jurisdiction and in accordance with the requirements of the CAN 1-B149, 1 and 2 installation code.

CAREFULLY FOLLOW THE COMPLETE CONVERSION INSTRUCTIONS CONTAINED IN THE CONVERSION KIT SUPPLIED WITH THE GF 1800.

HIGH ALTITUDE INSTALLATION

All units must be installed according to the following chart to determine which orifice will be used for the appropriate altitude

* Obtain the High altitude orifice from your Dealer

Natural Gas

- | | |
|-----------------|-------------------------------------|
| Up to 2000 feet | Do not Change the orifice. (2.38mm) |
| 2000-6000 feet | *2.28mm drill size orifice |

Liquid Propane

- | | |
|-----------------|-------------------------------------|
| Up to 2000 feet | Do Not Change the orifice. (1.87mm) |
| 2000-6000 feet | *1.78mm drill size orifice |

SECTION F

FOR YOUR SAFETY READ BEFORE OPERATING



WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repeat it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

OPERATING INSTRUCTIONS

STOP! Read the safety information above on this label.

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance via the ON/OFF switch on the control panel.
3. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
4. Turn manual valve at rear of unit clockwise to the full OFF position. ↻
5. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you then smell gas, **STOP!** Follow "B" in the safety information above on this label. If you don't smell gas, go to next step.
6. Turn manual gas valve to the full ON position. ↻
7. Turn on all electric power to the appliance.
8. Set the thermostat to desired setting.
9. If the appliance will not operate, follow the Instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE

1. Turn off electric power to the appliance using the ON/OFF switch located on the front of unit.
2. Turn manual valve clockwise to the full OFF position. ↻

NOTE: The fan will continue to operate until the appliance is cool, do not turn the appliance off by unplugging it from the wall.

Unplug the appliance only after unit is cooled down.

STARTING INSTRUCTIONS

•Step 1: Plug in the Heater

Plug in the AC cord, and route it away from the area of the flue pipe. It is recommended that no other appliance share the same outlet.

NOTE: When the unit is operated for the first time or the gas piping is replaced, the unit may not come ON the first few times since air is in the piping. In this case, repeat the starting procedures.

Step 2: Set "ON" Button

Depress the ON/OFF button to the "ON" position (Figure 22). The "Operation" light will illuminate, indicating the heater is on.

Burn lamp will light and ignition will start after approximately 20 seconds. In 90 seconds the circulation fan will start to operate, and warm air will be felt coming through the cabinet grill.

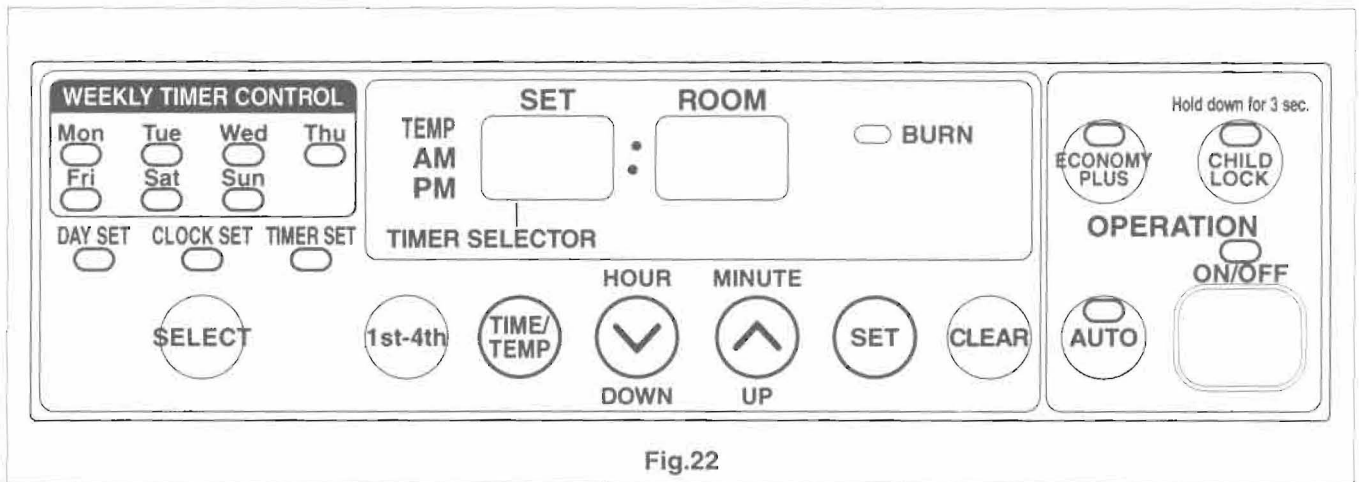


Fig.22

ADJUSTING ROOM TEMPERATURE

Pressing either the "Up" or "Down" button will increase or decrease the set temperature by 2 degree increments. Once desired temperature is displayed, press set button to lock into memory.

The heater will automatically change its heat output until the desired room temperature is reached. While it cycles, you may hear the circulation fan change speed, depending on the output required to maintain the desired room temperature.

*The heater will shut itself off temporarily when the desired room temperature has been reached and restart automatically when necessary to maintain room temperature.

NOTE: The heater may display room temperature 4 degrees above set temperature, depending on heater load conditions, before shutting itself off.

INSTRUCTIONS FOR ECONOMY PLUS MODE

To engage the economy plus mode, simply press down the button labeled "Economy Plus", to disengage press again.

NOTE: Operation switch must be "ON" and in manual mode.

This feature minimizes the "ON" and "OFF" cycling of the unit by allowing it to overshoot the set temperature by 8 degrees instead of the normal 4 degrees.

The advantages of this feature are to increase the overall efficiency of the unit by:

1. Reducing heat loss during the prepurge and postpurge cycles.
2. Reducing inefficient combustion associated with start up and shut down.
3. Prolonging component life by decreasing expansion and contraction of internal parts.

NOTE: This feature could be compared to driving an automobile in stop and go traffic (regular mode) versus highway driving with cruise control engaged (Economy Plus mode).

TURNING OFF THE HEATER

To turn off the heater, press the Operation Button to put it in the "Off" position (Figure 22). The operation light will go out, and the fuel flow will stop.

After turning heater off the fans will continue to run until unit has cooled down to the point where the fans will automatically stop.

PROGRAMMING THE HEATER

SETTING THE DAY OF WEEK AND THE TIME

Step 1: Set the Day of Week

Press the "SELECT" Button, at which time the "DAY SET" Light will illuminate. The "Mon" Light will illuminate and flash at this point.

Illuminate and flash the Light of the current day of the week (e.g.; "Wed") by pressing the "UP" or "DOWN" Button, and then press the "SET" Button to lock into memory. The current day (e.g.; "Wed") light will illuminate continuously.

Step 2: Set the Time

Press the "SELECT" Button, at which time the "CLOCK SET" Light will illuminate. The LED indicator in the Display Window will show 88:88 at this point.

RELIGHTING THE HEATER

Automatic controls prevent your heater from relighting after the Operation Button has been set to "Off" until heater has cooled.

If the Operation Button is put in the "On" position during the cooling period, the heater will automatically relight at the end of the period.

Step 3: Set the Hour

Press the "HOUR" Button until the correct hour (either A.M. or P.M.) appears in the window.

NOTE: The "HOUR" and "MINUTE" Buttons can be pressed and held or pressed momentarily to change the time.

Step 4: Set the Minute

Press the "MINUTE" Button until the correct time appears in the window.

Immediately press the "SET" Button.

NOTE: If the "SET" Button is not pressed within 1 minute after the time set, the programming will be cancelled.

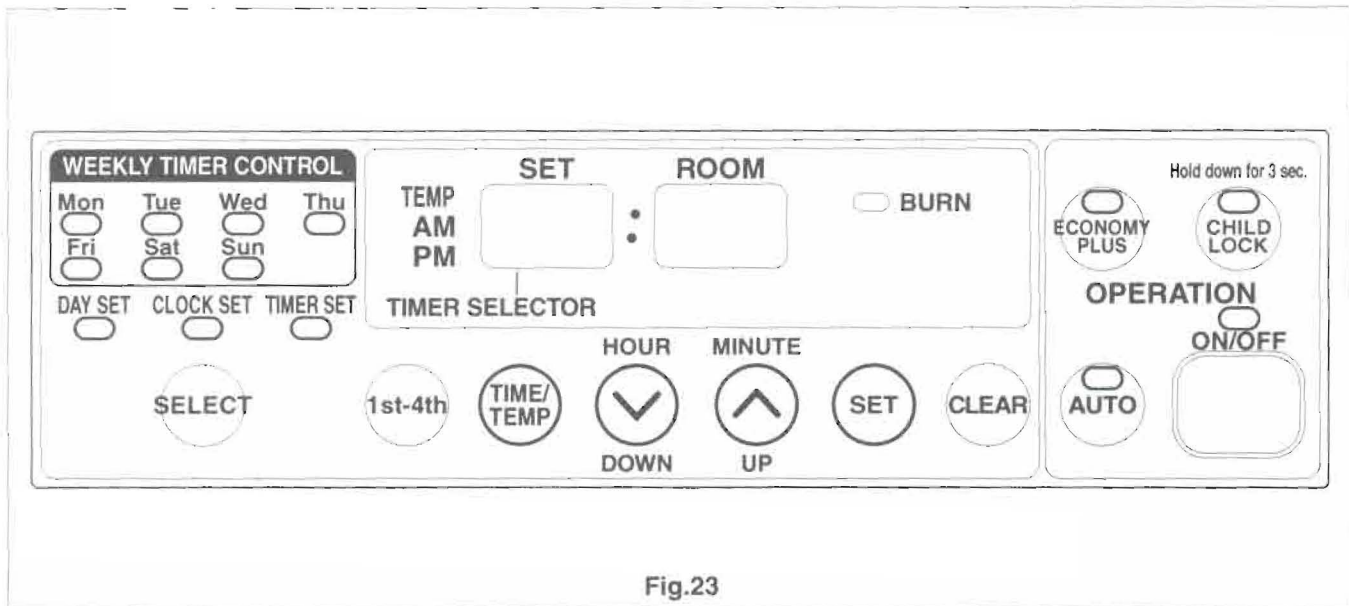


Fig.23

PROGRAMMING THE WEEKLY TIMER FOR AUTOMATIC HEATER OPERATION

The Monitor GF1800 Heating System is capable of providing up to 4 different temperature settings for 4 different times of each day of the week. Not all 4 settings have to be used; 2, 3 or 4 settings can be used. A clear understanding of programming temperatures, time and day of the week from the previous pages is needed before programming the automatic settings. Also, the present time and the day of the week must have been set. This system is capable of programming Monday to Friday, Saturday and Sunday to same 4 programs as shown in the table or each day can have a different set of 4 programs. Also, this system is capable of programming all 7 days to have the same set.

Suggested weekday and weekend programs are shown below;

Suggested Programs

Mon - Fri

	Time	Temperature
1st	6:00 AM	68°F
2nd	8:30 AM	60°F
3rd	5:00 PM	68°F
4th	11:00 PM	58°F

Sat - Sun

	Time	Temperature
1st	7:00 AM	68°F
2nd	10:00 AM	60°F
3rd	4:00 PM	68°F
4th	11:00 PM	58°F

Step 1: Setting the 1st program of Monday

Pressing the "SELECT" Button will illuminate the "TIMER SET" Light. The "Mon" Light will illuminate and flash, and the "TIMER SELECTOR" LED indicator in the Display Window will show "1" at this point.

Pressing the "TIME/TEMP" Button will illuminate the ":" Light in the Display Window, and then set the 1st desired time by pressing the "HOUR" and "MINUTE" Buttons. Once the desired time "AM or PM" is displayed, press the "SET" Button to lock into memory.

Press the "TIME/TEMP" Button again. Set the desired temperature for the 1st time setting by using the "UP" and "DOWN" Buttons. Once the desired temp is displayed, press the "SET" Button to lock into memory.

Step 2: Setting the 2nd, 3rd and 4th programs of Monday

Pressing the "1st-4th" Button will show "2" at the "TIMER SELECTOR" LED indicator in the Display Window.

Follow same steps as above, except for 2nd time/temp. (ie; 2nd 8:30AM 60°F)

Repeat 3rd and 4th settings by same steps.

Step 3: Setting the programs of Tuesday - Sunday

Pressing the "SELECT" Button will illuminate and flash the "Tue" Light, and the "TIMER SELECTOR" LED indicator in the Display Window will show "1" at this point.

Follow same steps as above, set the programs of Tuesday. Set the programs of remaining days in the same manner.

Step 4: Setting the program by using Copy function Tuesday - Friday

You can easily duplicate Monday's program for the remainder of the week, or any group of days, by using the Copy function.

After having set the program for Monday, press the "1st-4th" Button until "COPY" flashes in the LED display window. Note that "Mon" is also flashing in the Weekly Timer Control panel. To copy Monday's program to Tuesday, press the "UP" or "DOWN" button to flash the "Tue" light. Both "Mon" and "Tue" lights are flashing.

Press the "SET" button, and "Tue" is steady, and "COPY" and "Mon" lights are flashing.

Next. Press the "UP" or "DOWN" button to illuminate "Wed" and then press "SET". "Tue" and "Wed" are both steady, but "Mon" and "COPY" are flashing.

Repeat the above sequence for "Thu" and "Fri".

Then hold down the "SET" button for 3 seconds, or until you hear the "BEEP" and observe that "COPY" stops flashing. The programs for Tue, Wed, Thu, and Fri are now copied and set.

In about 10 seconds, only "Mon" will be flashing.

Press the SELECT button to select the current day, and the TIME will appear in the display window.

Saturday - Sunday

Follow same steps as above to set the "Saturday" program. (Steps 1 and 2)

Press "1st-4th" button until "COPY" flashes in the display window.

Press the "UP" or "DOWN" button to illuminate "Sun" which will flash.

Press "SET" button and "Sun" will light steady.

Then, press "SET" button for 3 seconds, or until you hear the "BEEP" sound and "COPY" light stops flashing.

The Sunday program has been copied from Saturday.

Step 5: Activate Automatic Operation

For the heater to operate on automatic once the settings are in memory, simply press the "AUTO" Button on the control panel. The "AUTO" Light will illuminate to confirm the heater is in the automatic operation mode. The heater will now maintain the programmed temp for that time of day of the week.

IMPORTANT: The heater will not operate in automatic unless the ON/OFF switch is in the "ON" position.

Step 6: Clearing An Automatic Setting

If you wish to clear any automatic setting, press the "SELECT" and "1st-4th" Button to the appropriate setting and press the "CLEAR" Button. A new setting will need to be entered otherwise the old setting will return after 1 minute.

MANUAL OPERATION

To deactivate the automatic operation, simply press the "AUTO" Button. The "AUTO" Light will no longer be illuminated and the heater will run on a manual setting. This setting will be determined by the previous auto setting for that time of day, unless reset. The automatic settings will remain in memory even if the unit is running in manual, unless there is a power outage for more than 30 minutes.

SECTION G

PROTECTIVE FEATURES

LOSS OF POWER-AUTOMATIC RESET:

NOTE: If power to the heater is interrupted, a thud-like noise may be heard in the combustion chamber. This is normal, and should not cause alarm.

For power interruptions of up to 30 minutes, the set memory is kept and will resume operation automatically with the set memory.

For power interruptions beyond 30 minutes, if your heater was in MANUAL operation before the power interruption, it will resume operation (after a 3 minutes cool down period) in the MANUAL mode and maintain room temperature at the last manually selected and set temperature. In the case of AUTOMATIC operation before the power interruption, the heater will resume operation at a reset temperature of 60° F.

When the heater resumes operation, The Display Window will show 88:88 indicating the need to reset the clock and the day of the week for automatic operation.

CHILD LOCK:

NOTE: The CHILD LOCK will help to prevent accidental operation as well as small children from altering controls.

To operate the CHILD LOCK simply hold the "CHILD LOCK" Button down for 3 seconds, or until you hear two short beeps. The function is activated immediately and the "CHILD LOCK" Light will illuminate.

To deactivate the CHILD LOCK simply hold the "CHILD LOCK" Button down for 3 seconds, or until you hear two short beeps. The "CHILD LOCK" Light will go out.

The lock can be deactivated at any time in this way.

During normal operation the CHILD LOCK may be activated and all controls other than the OFF switch will be locked. Deactivating the lock releases the controls. If the lock is activated while the heater is turned OFF, then all functions will be locked. If the heater is Turned OFF while the CHILD LOCK is activated, it cannot be turned ON again until the lock is deactivated.

ELECTRICAL FUSE

In the unlikely event of a failure in the heater's electrical system, a fuse will "blow" and interrupt the power. Do not attempt to change the fuse.

Contact your MPI dealer for the name of a trained and certified service representative in your area.

NOTE: Using a surge protector can minimize the chances of a blown fuse caused by power surges.

OVERHEAT PREVENTION

If your heater overheats, a thermostatic switch will automatically stop the flow of gas, and extinguish the flame. The Display Window shows "E17"

Restore heater operation by following the steps below

NOTE: Other symptoms listed in the trouble shooting chart may cause the display window to show "E 17", besides an overheat situation.

Step 1: Turn the Heater Off

Press the Operation Button to put it in the "Off" position.

Step 2: Allow the Heater to Cool

Wait approximately 30 to 45 minutes for the heater to cool completely.

Step 3: Unplug the Heater from the Wall Outlet.

Step 4: Remove Obstructions

The overheated condition may be caused by obstructions blocking the air flow to the heater. Check:

- The front of the heater
- The circulation fan (on the back of the heater).
- The flue pipe (outside)

Step 5: Remove Front Cover

Remove the screws from each side of the cabinet securing the Front Cover. Carefully remove the Front Cover.


Remove any accumulation of dust or other matter that may be covering the burn chamber and the heat exchangers inside the heater.

Step 6: Replace the Front Cover

Step 7: Plug in the Heater

Step 8: Re-program the Heater

Step 9: Turn Heater On

 **CAUTION:** If the unit overheats a second time, turn it off and contact your MPI dealer for service.

SECTION H

MAINTENANCE AND CHECK

Push operation switch to "OFF" remove the AC Plug from the wall outlet and wait approximately 30 minutes for the heater to cool before performing any of the following steps.

Checking the Heater Area

Should be kept clean and free from combustible materials, gasoline and other flammable vapors and liquids.

Retrieving Objects from Inside the Heater

Should an object fall inside the heater, through the grill openings, it must be removed to avoid affecting the operation of the heater.

After allowing the heater to cool, remove the front cover panel. (See Step 5, Page 22.) After the object has been removed, replace the Front Cover panel before attempting to re-start the heater.

Cleaning the Cabinet

When the cabinet is soiled, wipe it with a damp cloth. Restore the shine with a dry cloth. The use of abrasive household cleaners may dull the finish.

⚠ CAUTION:

Checking the Flue Pipe

At the beginning of each heating season, check the inside of the flue pipe. Foreign matter, spider webs, etc. must be removed.

Be sure all fittings and joints are tight.

NOTE: Reassembly and Resealing of the Vent-Air Intake Pipes

Make sure that all exhaust pipe and intake pipe connections are firmly mated.

Make sure that the connections between the flue pipe and exhaust/air intake pipe and hose are secured by the pipe holder (P/N 4006) and the hose band (P/N 4008).

Cleaning the Interior

Remove the front cover and grill assemblies (See Step 5, Page 22), and vacuum and wipe away dust and other accumulation.

Cleaning the Blower Guard

Heating efficiency will be reduced if the blower guard at rear of the cabinet is blocked with dirt or dust.

Blockage also produces a rise in heat that could cause the heater to shut off.

Wipe the guard clean at least once a week.

Electric Motor Maintenance

Motors are permanently lubricated and need no lubrication. Keep fan and motor free of dust and dirt clean annually.

Checking the Burner Flame

The burner of this appliance does not need cleaning, but check the burner flame once a year.

Flame pattern should be as shown in the following figures.

The burner must flame evenly over the entire surface when operating correctly. The flame must burn with a clear blue stable flame.

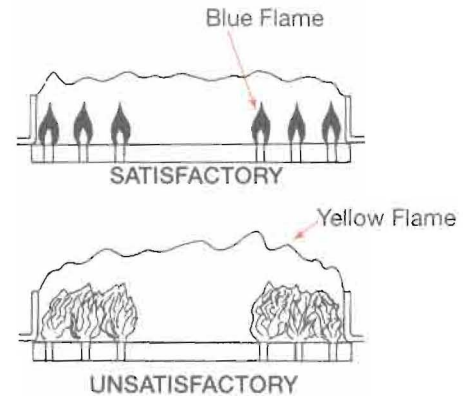


Fig. 24

Cleaning the Burner

Cleaning the burner requires disassembly of the heat exchanger and combustion chamber.

⚠ WARNING:

Do not attempt to disassemble the heat exchanger and combustion chamber. This work is critical and must be done only by an authorized technician.

Storing the Heater

During summer months or long periods when your heater will not be in operation, take the following steps:

- Clean off the exterior cabinet with a damp cloth, and brush or vacuum dust from the grills.
- Cover the heater to protect it from dust.
- DO NOT DISASSEMBLE the heater or extension kits. Replacement of lost parts is an unnecessary expense.
- Shut off fuel supply to unit.
- Disconnect or shut off power supply to unit to prevent possible damage from lightning or power surge.

SECTION I

TROUBLESHOOTING GUIDE

Should symptoms appear during the operation of your heater, refer to the chart below. If you are unable to restore normal operation, contact your MPI dealer for service.

SYMPTOM	CAUSE	REMEDY
Heater does not go on with operation switch.	Timer is in Auto.	Press Auto Button again.
	AC cord is disconnected from wall outlet. Power failure.	Check plug and power source. Reset circuit breaker.
Heater does not ignite.	Air in gas pipe.	Purge air. Repeat starting procedure.
Heater extinguishes after lighting. (Note 2)	Flue pipe obstructed. Louver obstructed.	Clear obstruction.
Erratic changes in room temperature. (Slight differences in room temperature are normal.)	Poor location of heat sensor. Poor air movement.	Relocate the sensor. Make sure clearances are kept around unit. Add room fans to better circulate air throughout area.
Automatic timer does not start heater.	Operation switch is not in the "ON" position.	Depress operation button to "ON" position.
	Timer is in Manual.	Press Auto Button.
	Timer improperly programmed.	See "Programming for Automatic Operation", page 21.
	Power interruption.	See "Loss of Power", page 22.
Poor flame, sounds of combustion, soot at the rear of the heater.	Loose flue pipe.	Allow heater to cool completely; tighten all connections.
Soot on inside of burner window or exhaust ports of flue pipe.	Obstruction of combustion air intake system or combustion fan failure.	Inspect air intake system and air supply elbow for blockage. Clean with a brush, if necessary, and carefully reconnect.
Heater switches from automatic to manual operation: display window shows 88: 88.	Power interruption; automatic reset.	See "Loss of Power", page 22.

NOTE: Several of the symptoms mentioned above may also be signs that your unit is due for routine maintenance, especially if it is several years old. Contact your Monitor dealer for an appointment.

Note 2: The GF is equipped with a blocked vent shut-off system to safely shut off the unit if the vent becomes blocked with snow or other obstruction. In the event that the GF unit fails to operate, contact an authorized service technician or a qualified service agency.

SECTION J

WIRING DIAGRAM

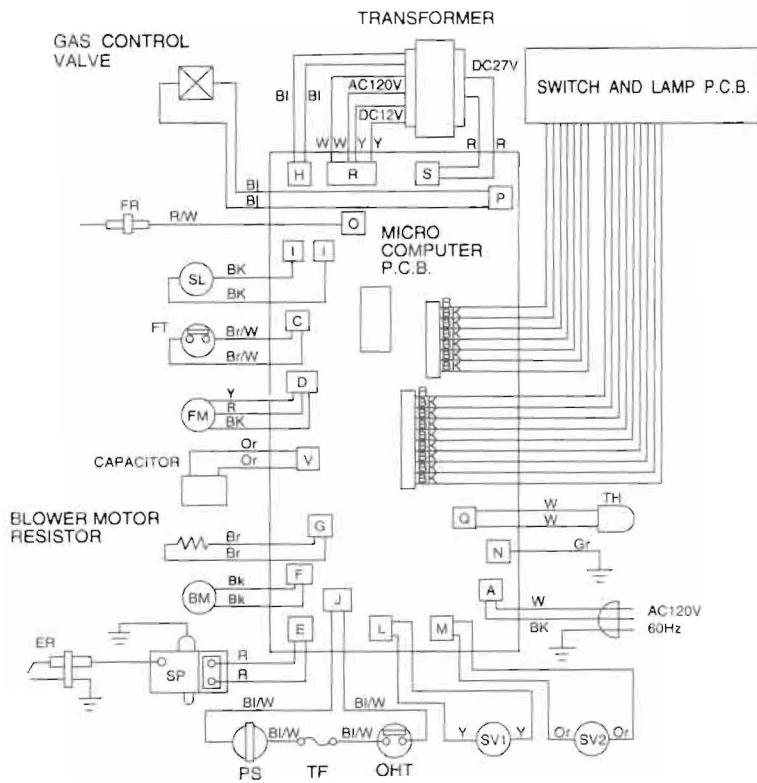


Fig. 25

BLOCK DIAGRAM

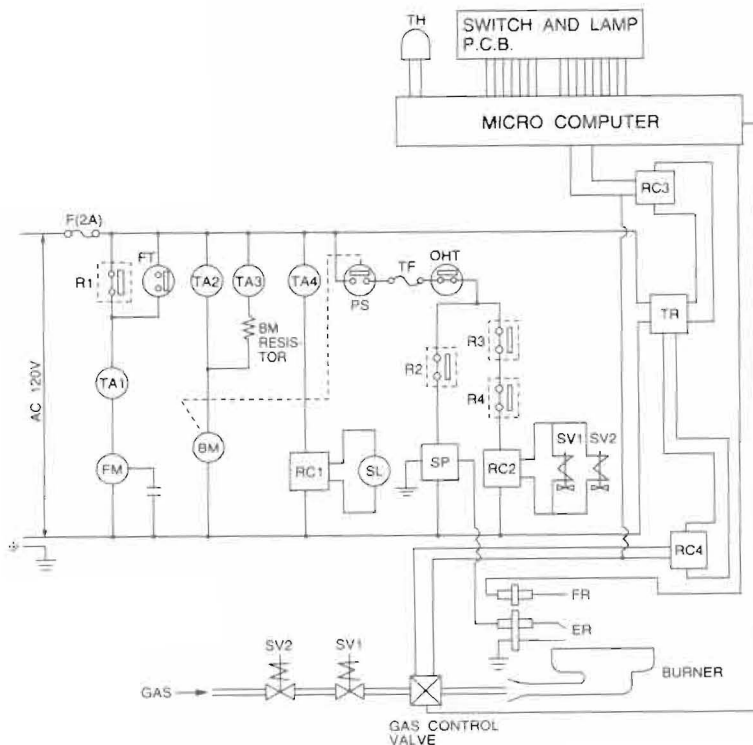


Fig. 26

⚠ CAUTION:

- Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.
- If any of the original wire as supplied with the appliance must be replaced, it must be replaced with a wire of at least a 105°C temperature rating.

CODE	COLOR
Bk	Black
Bl	Blue
Br	Brown
Or	Orange
R	Red
W	White
Y	Yellow
Gr	Green

MARK	PARTS NAME
BM	COMBUSTION BLOWER MOTOR
ER	ELECTRODE
F	CURRENT FUSE
FM	CIRCULATION FAN MOTOR
FR	FLAME ROD
FT	FAN THERMOSTAT
OHT	OVERHEAT THERMOSTAT
PS	AIR PRESSURE SWITCH
RC1~4	RECTIFICATION CIRCUIT
R1~4	RELAY
SL	SOLENOID
SP	SPARKER
SV1	SOLENOID VALVE 1
SV2	SOLENOID VALVE 2
TA1~4	TRIAC
TF	THERMAL FUSE
TH	THERMISTOR
TR	TRANSFORMER

※ Grounded inside chassis at bottom of unit.

SECTION K

PARTS LIST

NO.	PARTS NAME	PARTS NO.	QTY	REMARKS	NO.	PARTS NAME	PARTS NO.	QTY	REMARKS
1	ADJUSTABLE LEG	5019	4		37	BURNER PORT ASSY	6823	1	
2	TRAY	6851	1		38	FLAME HOLDER	6824	1	
3	AIR SUPPLY HOSE A	6741	1		39	BURNER PACKING	6825	1	
4	AIR SUPPLY HOSE B	6102	1		40	ORIFICE HOLDER	6826	1	
5	AIR LINE B	6845	1		41	ORIFICE GUIDE	6643	1	
6	O RING (P10)	6604	1		42	GASKET 7	6827	1	
7	AUTOMATIC GAS VALVE UNIT	6801	1		43	COMBUSTION BLOWER ASSY	6857	1	
8	GAS INLET JOINT	6803	1		44	BLOWER MOTOR	6858	1	
9	O RING (P11)	6609	1		45	SOLENOID	6142	1	
10	GAS PIPE JOINT	6804	1		46	SUCTION CASE A	6143	1	
11	O RING (P14)	6805	1		47	SEAL PACKING	6144	1	
12	GASKET 1	6806	1		48	PWB SPACER CLIP A	6461	9	
13	BURNER CHAMBER ASSY	6853	1		49	PWB SPACER CLIP B	6462	3	
14	WINDOW PACKING	6616	1		50	PWB ASSY	6859	1	
15	MICA PLATE	6617	1		51	POWER TRANSFORMER	6907	1	
16	MICA HOLDER	6618	1		52	FAN CAPACITOR(1.8 μ F)	6901	1	
17	PLUG BASE ASSY	6808	1		53	CABINET ASSY	6860	1	
18	FLAME DETECTIVE PLUG ASSY	6809	1		54	RUBBER BUSH	6136	2	
19	IGNITION ELECTRODE ASSY	6810	1		55	STRAIN RELIEF BUSHING	4833	1	
20	PLUG HOLDER	6622	1		56	POWER SUPPLY CORD	6706	1	
21	PLUG PACKING	6623	1		57	CARRYING HANDLE	6707	2	
22	GASKET 5	6811	1		58	SENSOR ASSY	6708	1	
23	GASKET 6	6812	1		59	WIRING GUARD (METAL WIRE WAY B)	6263	1	
24	COMBUSTION CHAMBER ASSY	6813	1		60	WIRING GUARD (METAL WIRE WAY A)	6263	1	
25	GASKET 4	6120	1		61	FAN BLADE	6768	1	
26	HEAT EXCHANGER ASSY	6854	1		62	CIRCULATION MOTOR	6767	1	
27	GASKET 3	6122	1		63	BLOWER GUARD ASSY	6261	1	
28	EXHAUST DUCT ASSY	6630	1		64	UNDER COVER	6771	1	
29	O RING (P39)	6176	1		65	LOUVER ASSY	6772	1	
30	GASKET 2	6817	1		66	PLASTIC BUTTON PANEL	6774	1	
31	AIR PRESSURE SWITCH	6855	1		67	LAMP PANEL	6714	1	
32	AIR LINE A	6819	1		68	CONTROL COVER	6776	1	
33	SPARKER	6634	1		69	SWITCH & LAMP ASSY	6716	1	
34	PRESSURE DETECTIVE PIPE	6856	1		70	FRONT COVER	6773	1	
35	BURNER ASSY	6821	1		71	FAN THERMOSTAT	6914	1	
36	MIXING PLATE ASSY	6822	1		72	OVER HEAT THERMOSTAT	6759	1	

NOTE : TO OBTAIN PARTS, CONTACT YOUR DEALER OR,
MONITOR PRODUCTS, INC. P.O. BOX 3408, PRINCETON, NEW JERSEY 08543

NO.	PARTS NAME	PARTS NO.	QTY	REMARKS	NO.	PARTS NAME	PARTS NO.	QTY	REMARKS
73	THERMAL FUSE	6836	1		108	TR ARRAY (M54563P) IC11	6187	1	*
74	TOP COVER	6863	1		109	TRIAC(Q1)	6255	1	*
75	BODY CLAMPS	6194	2		110	BUZZER	6203	1	*
76	VENT CONNECTOR	4004	1		111	GF200 FLAME ROD/ELECTRODE ASSY	6847	1	
77	PIPE HOLDER	4006	1						
78	AIR SUPPLY HOSE ASSY	6145	1						
79	FLUE PIPE A/B	8050	1						
80	SLEEVE NUT	6723	1						
81	SLEEVE FLANGE SET	6148	1						
82	EXHAUST OUTLET CAP	4014	1						
83	AIR PORT O RING	4016	1						
84	AIR OUTLET CAP	4805	1						
85	HOSE BAND	4008	2						
86	AIR DAMPER	6839	1						
87	ORIFICE(NAT GAS)	6814	1						
88	ORIFICE(LP GAS)	6815	1						
89	GAS PIPE ASSY	6802	1						
90	MANUAL GAS VALVE	6601	1						
91	RESISTOR	6162	1						
92	SCREW SET FOR FLUE PIPE	6197	1						
93	CARTON BOX FOR GF1800 L.P.	6864	1						
	CARTON BOX FOR GF1800 NAT	6865	1						
94	CUSHION SET	6785	1						
95	OWNERS GUIDE	6866	1						
96	TOUCH-UP PAINT(WHITE)	8216	1						
97	TOUCH-UP PAINT(M2400 GREY)	6722	1						
98	CABINET SCREW ASSORTMENT	6735	1						
99	PLUNGER ASSY	6142A	1						
100	ORIFICE(2~6000FT LP)	6844	1						
101	ORIFICE(2~6000FT NAT)	6843	1						
102	MICROPROCESSOR	6867	1	*					
103	FUSE(250V, 2A)	6173	1						
104	PHOTO TRIAC(IC2)	6701	1	*					
105	PHOTO TRIAC(IC3)	6257	1	*					
106	PHOTO TRIAC(IC4)	6258	1	*					
107	PHOTO TRIAC(IC5)	6259	1	*					

NOTE : TO OBTAIN PARTS, CONTACT YOUR DEALER OR,
MONITOR PRODUCTS, INC. P.O. BOX 3408, PRINCETON, NEW JERSEY 08543

NOTE2 : *FOR REFERENCE ONLY, NOT AVAILABLE AS SPARE PARTS.

- 92 Screw Set for Flue Pipe
- 93 Carton Box
- 94 Cushion Set
- 95 Owners Guide
- 96 Touch-up Paint (White)
- 97 Touch-up Paint (Grey)
- 98 Cabinet Screw Assortment

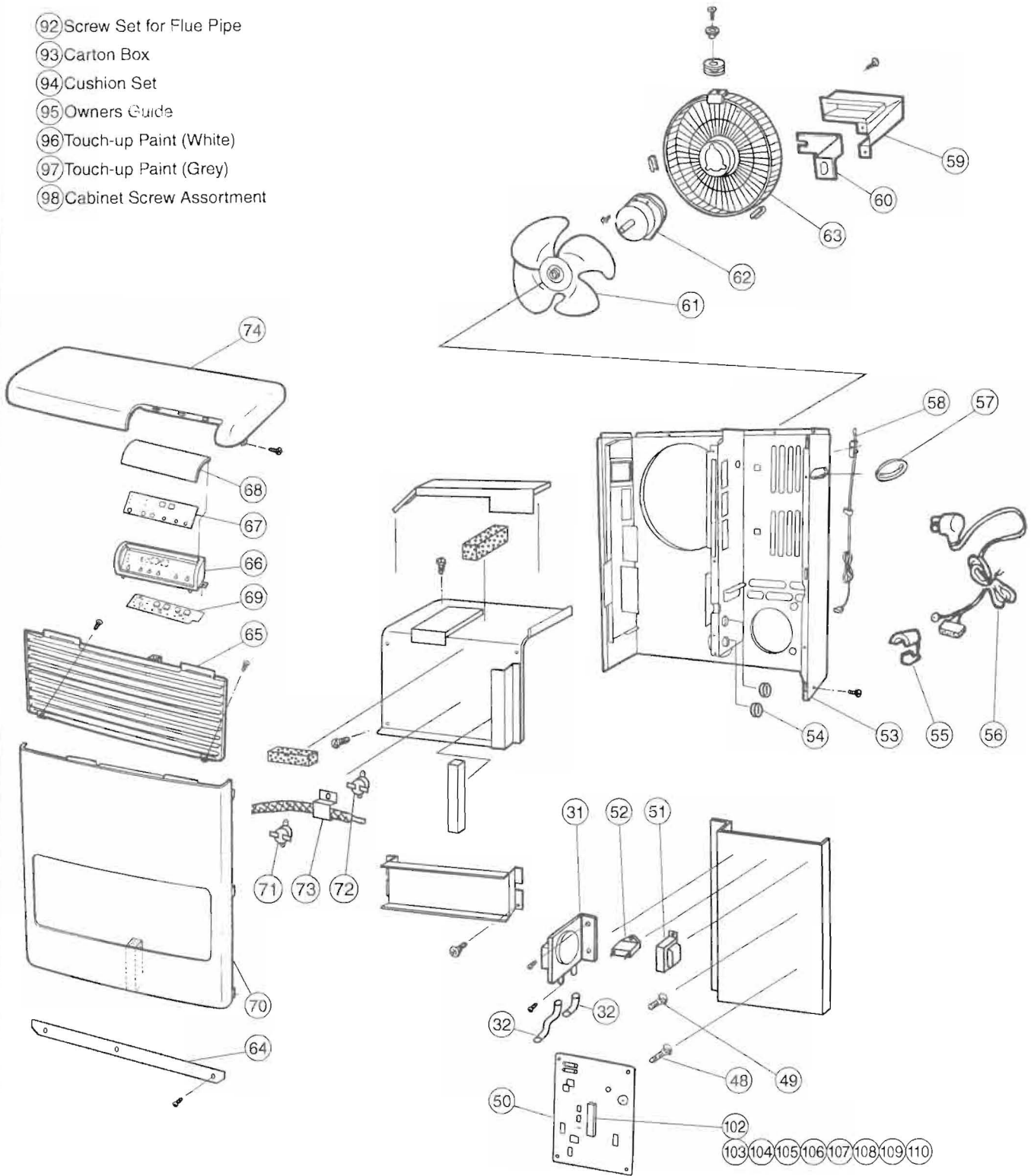
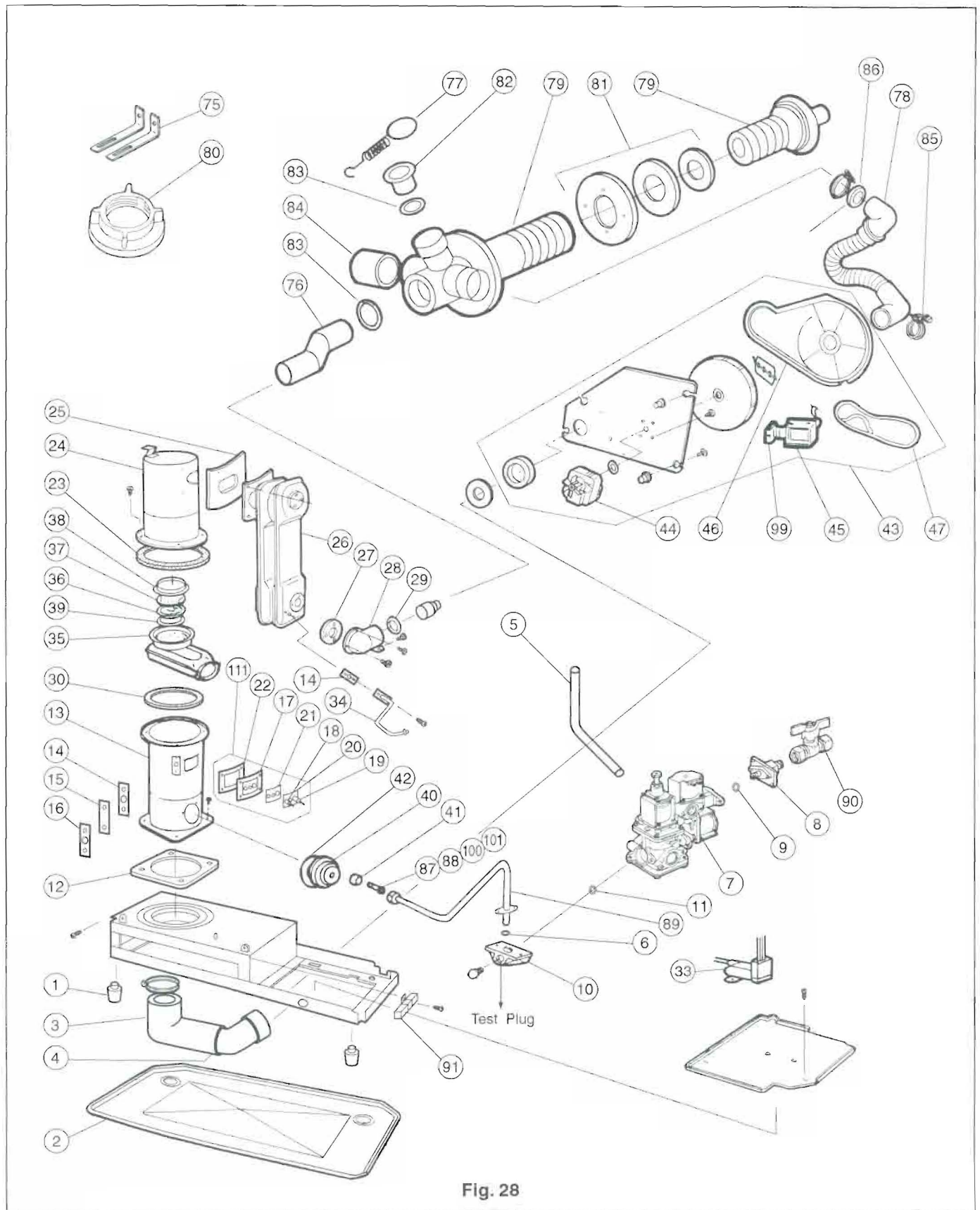


Fig. 27



Monitor GF1800 Vented Heating Systems Limited Warranty

MONITOR PRODUCTS, INC., warrants each MONITOR GF1800 Vented Heating System sold by it to be free from defects in material and workmanship, under normal use and service, for two years after date of original retail purchase, subject to the terms, and conditions stated below. An extended parts only warranty period of 36 months is provided for combustion chamber and heat exchanger. The remainder of the unit is subject to the 12 months warranty as provided herein.

1. **WARRANTOR:** This warranty is granted by Monitor Products, inc., P.O. Box 3408, Princeton, New Jersey 08543.
2. **PARTIES TO WHOM WARRANTY IS EXTENDED:** This warranty shall be extended only to the original retail purchaser
3. **PARTS COVERED:** All products and parts manufactured by or for Monitor Products, inc., except as provided for herein. Replacement parts are warranted only for the balance of the original warranty period.
4. **PARTS NOT COVERED:** The following parts are not covered by this warranty: venting kits, extension kits, fuses, and all parts damaged by lightning.
5. **REMEDY:** If within the applicable warranty period, any product or part included in this warranty proves to be defective in material and/or workmanship, then Monitor Products, inc., shall repair or replace, at its option, the defective product or part. Service at the point of installation (not including dealer travel time) will be provided at no charge to the customer, but must be performed by a Monitor Products, inc., dealer authorized to sell and service the MONITOR GF1800 Vented Heating System.
Service will not be performed by Monitor Products, Inc., but by an authorized servicing dealer.
If the Monitor system was sold by a seller, other than a local authorized dealer, such as an internet retailer and/or shipped or obtained from a distant dealer, Monitor Products, Inc. will use its best efforts to assist in locating a local authorized servicing dealer.
If a local dealer is not available, the consumer will need to ship the heater to an authorized servicing dealer or pay travel costs of such servicing dealer. This warranty does not cover those shipping or travel costs.
6. **PROCEDURE FOR OBTAINING PERFORMANCE UNDER THIS WARRANTY:** In order to obtain performance of the obligations under this warranty, the original purchaser must promptly (in no event later than thirty (30) days after discovery of the defect) notify the local Monitor Products, inc., dealer authorized to sell and service the MONITOR GF1800 Vented Heating System. Service will be provided during normal business hours within a reasonable time after the dealer has been notified of the need for service. If you are unable to locate a local Monitor Products, inc., dealer authorized to sell and service the MONITOR GF1800 Vented Heating System, call or write: SERVICE DEPARTMENT, MONITOR PRODUCTS, INC., P.O. BOX 3408, PRINCETON, NEW JERSEY 08543, 732-329-0900, for assistance in finding an authorized servicing dealer.
If the Monitor system was sold by a seller other than a

local authorized dealer, such as an Internet retailer, and/or shipped or obtained from a distant retailer, the consumer may be without a local authorized servicing dealer as stipulated by this warranty. In that case, the consumer will pay for shipping the Monitor product to an authorized servicing dealer or pay the travel costs of such servicing dealer to provide the remedy of the problem under this warranty.

Any claim made under this warranty must be accompanied by proof of original purchase date, sales invoice or canceled check showing the serial number as satisfactory evidence.

7. **SOLE REMEDY:** The remedy and liability for any breach of warranty, express or implied, set forth above is the sole and exclusive remedy and the limit of liability for any such breach.
8. **EXCLUSIONS AND IMPLIED WARRANTIES:** THIS WARRANTY DOES NOT EXTEND TO ANY DEFECT DUE TO THE NEGLIGENCE OF OTHERS, FAILURE TO INSTALL, OPERATE OR MAINTAIN THE HEATER IN ACCORDANCE WITH THE INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTION FURNISHED WITH EACH NEW HEATER, UNREASONABLE USE, ACCIDENTS, ACTS OF GOD, FIRE, SNOW, FLOODS, LIGHTNING, ALTERATION, ORDINARY WEAR AND TEAR, THE USE OF UNAUTHORIZED OR NON-STANDARDIZED PARTS OR ACCESSORIES. ALL IMPLIED WARRANTIES, IF ANY, ARISING UNDER STATE LAW IN CONNECTION WITH THE SALES BY MONITOR PRODUCTS, INC., OF ANY NEW HEATER ARE LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OTHER THAN AS EXPRESSLY STATED HEREIN. MONITOR PRODUCTS, INC., SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. WHETHER AS A RESULT OF BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE TO YOU IF NOT PERMITTED BY APPLICABLE LAW.

NOTE: SOME STATES DO NOT ALLOW: (A) LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS; OR (B) THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

9. **NO VARIATION OF TERMS:** THE PARTIES INTEND THAT THIS WARRANTY BE THE EXCLUSIVE AND FINAL EXPRESSION OF THEIR AGREEMENT.
No person has the authority to orally, in writing or in any other way vary the terms, conditions or exclusions of this warranty, or to make any express warranties other than those contained herein.
10. **LEGAL RIGHTS:** This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

MONITOR PRODUCTS, INC.
P.O. BOX 3408
PRINCETON, N.J. 08543